CPR vs. BLFE
Will Case Set Pattern?—P. 9

Car Delay Helps Measure Yard Efficiency...p. 32

RAILWAY AGE

JUNE 3, 1957 • THE INDUSTRY'S NEWSWEEKLY

Wrought Iron Pipe helps hike efficiency in

CLASSIFICATION AT PENNSY'S CONWAY YARD

At the Pennsylvania Railroad's Conway Yard near Pittsburgh, freight car classification calls for split-second timing, round-the-clock. Take car retarding, for example. Here's one place in particular where unfailing service is imperative. And to make sure that vital air lines operating car retarders don't spring any leaks, the PRR uses durable wrought iron pipe.

Wrought iron pipe's unique structure of glasslike iron silicate fibers discourages pitting and fatigue. Corrosion and vibration hazards just don't stand a chance against such a defense. That's why the PRR okayed wrought iron for further service in the Conway yard: for underground air, water and fuel lines. Our new booklet, *Wrought Iron for Railroads*, is full of helpful tips on efficient yard operation. Write for your copy. A. M. Byers Company, Clark Building, Pittsburgh 22, Pennsylvania.

Available in Canada and throughout the world

BYERS Wrought Iron Tubular and Hot Rolled Products

The Kershaw CRIB-ADZE

Kribbers

Multiple Adzers

Reversing

Finished Job

...Another Example of KERSHAW Leadership!

DOUBLE YOUR ADZING PRODUCTION WITH THE KERSHAW CRIB-ADZE

NOW . . . the revolutionary Kershaw Crib-Adze works on either right hand or left hand rail. Operated by only one man, the Kershaw Crib-Adze cribs between the ties, adzes the ties and then creosotes all in one operation. It does the work formerly done by one Kribber, three adzing machines, one tie brush and one tie creosoter.

All ties are automatically adzed in the same plane, eliminating the necessity of spot surfacing behind the rail re-laying gang.

The Kershaw Crib-Adze can double the adzing production in your rail re-laying gang, and at a tremendous savings.

KERSHAW
MANUFACTURING CO. INC.
MONTGOMERY ALABAMA

How Armco Freight Car Flooring Helps Boost Profits

Nailable Armco Freight Car Flooring builds this four-way foundation for higher profits from gondolas, box or flat cars:

1. They last longer because they're stronger — Hat-shaped steel ribs and wood planks, laid alternately, bear up under heavy lading. At the same time, they reinforce the car underframe.

2. Less down-time—Strength to resist damage helps Armco floors keep cars out of the repair shops.

3. Costly claims reduced—since Armco Freight Car Floors stay in good condition, they help cut down on damage to lading.

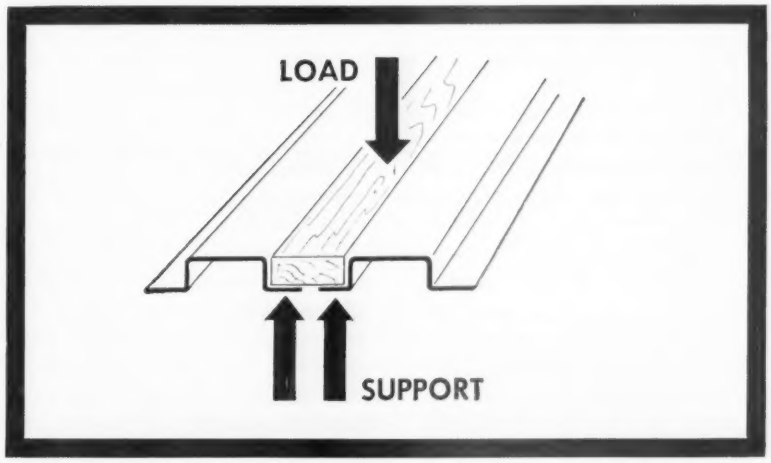
4. Each car produces more revenue—Armco floors support bulk *and* unit lading. You get more work from fewer cars because it is not necessary to choose cars by floor type.

Wheel loads of five tons from lift trucks are common, but easily supported by Armco Freight Car Floors. The reason: Two steel ribs support each wood plank.

Tailored Floors

After studying blueprints of your car frames, Armco engineers "tailor" standard Armco Flooring to suit your needs. For example, ribs will come coped to clear rivet heads if your car construction requires. Detailed drawings reach you before the flooring arrives — help speed assembly.

Further information on Armco Freight Car Flooring is readily available. Just contact the Armco Sales Office near you, or write us at the address below.



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1387 CURTIS STREET, MIDDLETOWN, OHIO

SHEFFIELD STEEL DIVISION • ARMCO DRAINAGE & METAL PRODUCTS, INC. • THE ARMCO INTERNATIONAL CORPORATION

Check list for a customer: to measure the responsibility of a supplier

You expect to purchase good products from any supplier with whom you place an order.

Your own business acumen and experience take care of that. In addition, you expect, and deserve, the things sometimes referred to in contracts as "other considerations".

"Other considerations" are a matter of *responsibility*—the obligation of a good supplier to earn his good name.

This is the first of a series of advertisements in which we are going to look at our business from where you stand—and invite you to share the view.

We want to discuss *responsibility*—for we believe "responsibility" is the foundation of business. We want to discuss *price*—what a reasonable price should be in relation to continually rising material and labor costs.

We'll discuss *delivery*. The experiences of 1956 verify its importance. And delivery becomes *customer-service* when it means the same careful attention to orders for repair parts as was given to your original order. Here is where performance after the sale measures the worth of a supplier.

And we'll show how Research and Development challenges the best *product* to be better with new *money saving products* and *service*.

In the months to come we'll invite comparison—and do it with confidence. Only you can objectively hold the yardstick up.

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RAILWAY AGE The Industry's Newsweekly

Vol. 142, No. 22
June 3, 1957

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PAID CIRCULATION THIS ISSUE ...14,603

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Does commuter service need subsidy? p.10

The New Haven's George Alpert adds his voice to swelling chorus now stating publicly that it does. He decries role of auto-clogged superhighways in mass transport.

Car delay helps measure yard efficiency p.32

Something new's been added at the Western Maryland's Hagerstown terminal. It's the job of keeping cars moving coupled with the cost responsibilities of supervisory forces. The goal: better car utilization.

Yard-Cleaning costs cut sharply p.34

Not content with what might have seemed perfection, the EJ&E is out to cut in half "housekeeping" expenses which it has already trimmed by 50%.

How NP saves on payroll reporting p.37

The right equipment and the right system pay off fourfold: the job's simpler, faster, cheaper and more accurate.

They changed rip track operations p.38

The Frisco took feast-or-famine aspects out of car inspection and light repairs at Springfield, Mo. Car men and inspectors work interchangeably and two small "speed rip" tracks have been set up at strategic spots in the yard.

How to unload lumber fast p.40

Quicker in and quicker out, steel-strapped bundles of lumber for box car shipments cut costs, speed car turnaround, boost payloads and promise fewer damage claims.

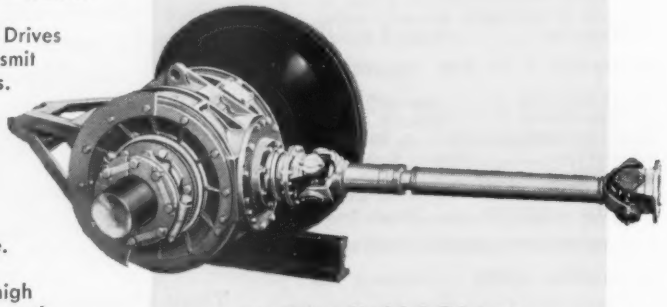
Budd uses the Spicer Drive for swift, economical Rail Car service

Budd Rail Diesel Cars are being adopted in ever-increasing numbers throughout the world because of their proved ability to reduce costs, improve service and attract traffic.

These Budd cars are equipped with two Spicer Drives that mount directly on the axles, and transmit power from the diesel engines to the wheels.

The Spicer Drive is a self-contained unit employing ground spiral bevel gears, with all wearing parts running in a constant bath of oil, completely sealed and protected from ballast, dirt, water, snow, etc., for long life and freedom from maintenance.

This unit incorporates the same features of high efficiency, economy, safety, quietness, and smoothness associated with over 12,000 Spicer positive generator drives in use on railway Pullman coaches, diners, and other rolling stock throughout America.



The Spicer Model 8 Drive as used in Budd Rail Diesel Cars.

Spicer

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Current Statistics

Operating revenues, three months	
1957	$2,574,640,178
1956	2,535,561,742
Operating expenses, three months	
1957	$2,022,062,144
1956	1,981,503,801
Taxes, three months	
1957	$271,500,619
1956	269,326,709
Net railway operating income, three months	
1957	$213,857,758
1956	218,900,246
Net income estimated, three months	
1957	$161,000,000
1956	163,000,000
Average price 20 railroad stocks	
May 27, 1957	90.84
May 29, 1956	101.73
Carloadings revenue freight	
Twenty weeks, 1957	13,488,107
Twenty weeks, 1956	14,278,209
Average daily freight car surplus	
Wk. ended May 18, 1957	17,833
Wk. ended May 19, 1956	6,894
Average daily freight car shortage	
Wk. ended May 18, 1957	711
Wk. ended May 19, 1956	6,679
Freight cars on order	
May 1, 1957	105,190
May 1, 1956	137,436
Freight cars delivered	
Four months, 1957	34,210
Four months, 1956	20,972
Average number railroad employees	
Mid-April 1957	992,593
Mid-April 1956	1,048,965

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Week at a Glance CONTINUED

The Action Page—What is good accounting? p.52

Attempts to reconcile railroad net earnings according to ICC standards with Internal Revenue views ought not be allowed to muddy less-than-clear waters. Accounting should be strictly a handmaiden.

SHORT AND SIGNIFICANT

Commuter-service survey . . .

under way on the Milwaukee may result in converting main-line air-conditioned coaches to suburban service. Commuters have been polled as to their schedule preferences.

C&O diversifying . . .

C&O President Walter Tuohy, speaking to financial analysts May 22, reiterated his company's interest in diversifying—not only by investments in other kinds of transport, but in other types of business. He expects C&O's traffic and earnings to keep on growing, and that '57 will be "at least as good" as '56, the road's most prosperous year to date.

Seven days of argument . . .

beginning today will be heard by the ICC in the Ex Parte 206 freight-rate case. The commission will then have before it for decision the pleas for 22% and 15% increases sought, respectively, by eastern and western roads and by southern roads, other than the Southern and Piedmont & Northern. Both raises would include interim increases which have been in effect for about five months in the East and West and for three months in the South.

Dr. Walter M. W. Splawn . . .

has joined the staff of the House Interstate Commerce subcommittee which is investigating the administration of regulatory laws by regulatory agencies, including the ICC. Dr. Splawn served as a member of the ICC for nearly 20 years, having retired in 1953 at the age of 70. He will be in charge of staff work on the House committee's investigation.

Walter J. Kelly will retire . . .

at the end of this month from his position of AAR vice-president in charge of the association's Traffic Department. AAR rules require retirement at 70, and Mr. Kelly will reach that age on June 23.

RAILWAY AGE
The Industry's Newsweekly

All RR Eyes on CPR-BLFE Case

Prime issue of whether fireman is to go or stay is vital to United States roads and CNR, too—They expect to renew negotiations on subject eventually — Royal Commission findings may be influential in setting precedent

Attention of Canadian and United States railroad officers was drawn back to Ottawa last week when the Royal Commission investigation into the challenging issues of the Canadian Pacific-Brotherhood of Locomotive Firemen & Enginemen dispute was resumed.

The hearing was adjourned in mid-May soon after the railroad concluded its case and the brotherhood had launched its presentation.

Toughest knot for the quasi-judicial tribunal to loosen is the question of whether the fireman is an anachronism in the age of the diesel locomotive.

CPR President N. R. Crump himself testified that he feels the fireman is "unnecessary" in road freight and yard operations. Further, the road has sought to convince the commission that the job is an economic liability—even a luxury—that can't be afforded in today's short-capital, tough-competition setup.

So convinced is the CPR that the fireman must go that it has offered what it termed a $38 million plan to ease his exit. The plan can be evaluated that highly, the road stated, because that figure is "the extra amount which could be saved if the CPR were able completely to remove firemen without compensation from freight and yard diesels by the end of 1957."

Actually, "immediate removal" would mean savings of more than $5,000,000 a year right now and $11,000,000 annually by 1961 when the road should be fully dieselized.

Under the plan offered, 2,450 firemen with over four years seniority would continue in their jobs with full seniority rights. Another 475 with service between one and four years would be offered available work as trainmen or yardmen and would be guaranteed a minimum wage whether they worked or not. Firemen with less than a year's work on the road would be given priority over all other applicants for other jobs on the railroad.

What official brotherhood reaction to this proposal will be is uncertain. It turned down the road's previous plans at the start of contract negotiations last year (holding the issue was non-negotiable), and the resulting stalemate touched off a nine-day strike in January. The strike was called off, after completely freezing the railroad coast to coast, when the commission was set up to investigate the problem—its findings, however, not to be imposed arbitrarily (Railway Age, Jan. 21, p. 9).

Immediate brotherhood reaction to the plan submitted to the commission may have been indicated, however, by BLF&E Counsel D. B. Lewis. In cross-examining the CPR president, Mr. Lewis asked whether the railroad would amend its proposal by permitting all firemen with over a year's service to continue on their jobs—the implication being that no new firemen would be hired and that those now employed would not be replaced as they retired or resigned.

The question, Mr. Lewis emphasized, was not a counter-proposal and did not represent brotherhood viewpoint. Mr. Crump took the idea under advisement.

Stainless Steel Budd Cars Start for Brazil

The first of 90 stainless steel passenger cars ordered by Brazil's Santos-Jundiai Railroad from the Budd Company being loaded aboard ship in Philadelphia. Thirty-four of the cars will be built in Philadelphia, the other 56 will be assembled in the Sao Paulo plant of a Budd licensee. The equipment will operate in high-speed electrified suburban service as three-car units with one power car and two trailers.

It's not the fireman's fault he's obsolete, CPR general solicitor Ian D. Sinclair said, but rather that the diesel engine had simply made him a "fifth wheel."

"He's tried hard to find work to occupy his time. Today he may be trying harder than ever. He tries to keep busy and would like to be able to earn his pay."

To which point Mr. Crump added that he thinks the firemen themselves must feel they aren't earning their pay.

It's the railroad's contention that the fireman in road freight and yard operations is superfluous and that everything he does is duplicated by—or is a duplicate of—work performed by others.

The road would have the engineer operate switch engines alone; it would eliminate the fireman from the three-man crew now used in road freight engines (others being the engineer and head-end brakeman); and would continue the fireman as the engineer's only partner in operation of passenger engines.

The union holds that the fireman fills an important job and that he's vital to the efficient and safe operation of all trains.

Extent of the interest on other railroads in this argument is indicated by the roster of witnesses called on by Mr. Sinclair. In addition to various CPR officers, he called on C. A. Borntrager, recently retired senior vice-president, New York Central; D. P. Loomis, chairman, Association of Western Railways; John P. Kiley, president of the Milwaukee; L. S. Lawrence, road foreman of engines, Santa Fe; D. V. Gonder, assistant vice-president, operations, Canadian National; Arden Bybee, superintendent, Quebec, North Shore & Labrador; and J. P. Koster, manager, rolling stock, Netherlands Railways.

The burden of their collective testimony was that the fireman is unnecessary for operations of a modern railroad.

Mr. Borntrager, stating that the issue is a "common problem," said United States railroads will revive the issue when their contract with the firemen is up again. It was withdrawn from last year's negotiations, he said, when the firemen were willing to set a pattern for operating unions by signing a three-year pact similar to that approved by the "non-ops."

Mr. Loomis confirmed this, stating that the U.S. roads felt employment of firemen should be a management decision. Some of these roads, he said, wanted to eliminate the job entirely.

Whatever the Royal Commission decides in the case may have a decided bearing on their course.

Foreign Road Insignia in B&O Museum

Emblems of 28 foreign railroads went on public exhibition May 20 at Baltimore & Ohio's Transportation Museum at Baltimore. Display was unveiled at ceremonies which included addresses by road's executive assistant, L. W. Baker, and its director of public relations, W. H. Schmidt, Jr. Representatives of several countries with insignia in display attended.

CNR's attitude, according to testimony, also is that it should be up to the railroad. The issue was dropped from this road's negotiations for apparently strategic reasons, Mr. Gonder noting that CNR's first yard diesels were originally operated with only one man in the cab.

European railroads were said to have eliminated the fireman almost completely, while the QNS&L's Mr. Bybee pointed out that there is no such job in any of his road's operations, even the relatively small passenger service it provides.

To sum it up, the CPR contends that preservation of the firemen's job is "out and out featherbedding," while Mr. Crump stated that for the brotherhood to persist in its efforts would be to mislead its membership.

Other issues in dispute are "arbitraries" now paid for locomotive inspection and for service in the "mountain and valley" sections of British Columbia, the latter a carry-over from steam days when the grades required laborious stoking.

BofMWE Files New Work-Rule Demands

Railroad labor experts last week were studying a new set of demands of the Brotherhood of Maintenance of Way Employees.

The demands, served on the individual railroads May 22, came as national-level negotiations with two other major unions continued in Chicago with the help of the National Mediation Board. Still to be resolved are demands of the Brotherhood of Locomotive Engineers and the Order of Railway Conductors and Brakemen.

Organizations representing about 90% of rail employees have signed up for what largely amounts to a "pattern" settlement granting wage increases over a three-year period.

The BofMWE's demand for 10 new rules strikes deeply at the railroad's use of mechanized track equipment. The brotherhood served the demands to "check" what its president, T. S. Carroll, called the "fearful slaughter" of jobs in the maintenance-of-way craft.

One of the union's proposed rules would give employees affected by a reduction in force or by mechanization of trackwork the same benefits provided by the 1936 Washington job protection agreement for employees affected by merger or abandonment.

Others would provide that changes in work methods by a railroad be "the

subject of prior notice to and agreement with the general chairman," and also would provide that the general chairman agree to establishment of mechanized track gangs, changes in track section limits, size of gangs, rates of pay and a number of other matters.

Installation of new types of track machinery would be subject to prior agreement with the general chairman, under the union's proposed rules, as would contracting for construction, repair or maintenance work, if such work would be within the scope of the railroad's agreement with the BofMWE.

The strike of members of the Brotherhood of Locomotive Firemen & Enginemen which had completely halted operations of the Duluth, Winnipeg & Pacific, a Canadian National subsidiary, ended May 21 (Railway Age, Apr. 22, p. 10). The settlement arrived at, said a CNR statement, makes effective for members of the BLF&E and the Brotherhood of Railroad Trainmen on the DW&P the "pattern" terms of last year's national settlement.

Does Commuter Service Need Subsidy?

George Alpert, New Haven president, proposes that railroad commuter operations deemed in public interest be relieved of municipal taxes and subsidized in return for guaranteed, low-cost, frequent service

Railroad commuter operations have a built-in deficit which must be covered by public funds if railroads are to provide the service considered necessary in the public interest.

So said George Alpert, president of the New Haven, at last week's Chicago meeting of metropolitan transit experts from throughout the U.S. and Canada. The meeting, billed as the first National Conference on Coordinating Metropolitan Area Transportation, was called by Walter J. McCarter, general manager of the Chicago Transit Authority.

Mr. Alpert told the meeting that for the past 25 years urban transit planning has been headed in the wrong direction. Building mass transportation systems around the automobile and its average of 1.6 occupants, he said, has led to today's jam-up in urban transit.

In building more superhighways and attempting to provide more downtown parking space, the NH chief executive added, cities are merely trying to "cram a bushel into a peck." Such cities, he said, forget that a two-track railroad can carry five times as many persons as a four-lane highway—without creating a downtown parking problem.

Mr. Alpert proposed that railroad commuter service deemed in the public interest be relieved of municipal taxes and that it be subsidized by communities it serves in return for guaranteed low-cost, frequent service.

Bruce Dwinell, vice-president and general counsel of the Rock Island, called for a sincere approach to transit problems by transport agencies and the public alike, so that no conflicting purposes arise to provide fuel for prolonged court action.

Mr. Dwinell described the method by which the Staten Island Rapid Transit's passenger service has become the responsibility of New York City's borough of Richmond, with the

MACKIE OFFERS TRIPLE PLAY TO OFFSET 3-PLY PROBLEM

Eastern Railroad Presidents Conference Chairman D. I. Mackie has recommended a three-point program to help railroads serving New York City to offset a trio of crippling handicaps.

The handicaps as Mr. Mackie sees them:

1.) Taxation "bleeding white already losing passenger facilities through unconscionable" levies.

2.) Ruinous "costs of operating unpatronized facilities."

3.) Commutation fares economically too low but which can't realistically be raised much higher.

The remedies offered:

1.) Adoption of tax policies that won't inordinately burden a necessary but uneconomic operation.

2.) Recognition that high-speed transportation can't be attained without elimination of unused facilities.

3.) Sharing of commuter deficit burdens by the communities benefited.

As a preamble to his remarks, Mr. Mackie declared it must be recognized that "railroad passenger business, as we know it, has not been and cannot be, operated at a profit."

There's Still 'Steam' on the Central Vermont

This new $55,000 steam generator car, constructed in the St. Albans, Vt., shops of the Central Vermont, Canadian National subsidiary, is said by the railroad to be the first of its type in New England. The car will provide trains with supplementary heat in extremely cold weather. The road's train service has been completely dieselized since late March.

railroad being hired as contractor to perform the service.

Similar arrangements, some participants in the meeting said, could become the solution to urban transit problems in Philadelphia, San Francisco and Boston. Lease of some railroad properties in those cities would be involved.

Mr. Dwinell said urban planners must recognize that pure coordination of all mass transportation facilities—which would include taxpaying railroads—may deprive communities of some tax revenue so that all participants in the coordinated setup would be on an equal footing.

Senate Passes 4th Section Bill

The Senate has passed S.937 which would amend the Interstate Commerce Act's Section 4 as recommended by the Interstate Commerce Commission in its annual report. The bill is now before the House where a like proposal, H.R.2808, was already pending.

The amendment would permit railroads having circuitous routes to meet the competition of direct routes by publishing rates involving fourth-section "departures" without prior approval of the commission. This would limit the commission's fourth-section power to the matter of relief over direct routes. It would "streamline" the section "without disturbing its principal purpose," the commission has said.

New Piggyback Cars Coming for the SP

Southern Pacific, biggest piggybacker in the West, recently displayed in San Francisco and Oakland the first of its 150 new "Clejan-type" piggyback flat cars. The cars, similar to those used by such roads as the Kansas City Southern and the New Haven, are being built in SP's Sacramento shops.

Trailers can be loaded faster and tied down in one minute instead of six as required with conventional flat cars, the SP says. A set of flanged wheels mounted on the axle guides the trailer along the I-beams which form the frame of the car. The trailer's tires don't touch the car. Tractors also are equipped with the guide wheels.

SP's new cars are 79½-ft long and weigh 18,000-lb less than conventional piggyback flats. They can carry two 35-ft or three 24-ft trailers. SP has ordered 20 loading tractors and will equip 830 of its trailers for use on the new cars.

Construction of the 150 new cars is related, indirectly, to the SP's studies of common-carrier piggybacking. The road has been talking to at least three large western motor carriers and would, if current discussions pan out, begin handling common-carrier trailers later this year.

The Clejan-type cars would be reserved for the SP's own trailers. Conventional flat cars would be used in common carrier service.

'Welcomer' Gets Ready for Chicagoland Fair

Nine feet tall, with head and arms that move, and wired for sound, this diesel engineer will welcome visitors to the railroad exhibit at the Chicagoland Fair, June 29-July 14. The exhibit is sponsored by 16 railroads. Adjusting the welcomer's bandanna is Dorothy Narr of Milwaukee.

New SW Storms Set Back RR Rebound

Heavy rains and tornadoes continued to disrupt rail service in the southwest last week. The bridge across the Brazos River on the Stamford spur line of the Ft. Worth & Denver west of Ft. Worth, was reported washed out. The Santa Fe line between Guthrie, Okla., and Stillwater was "out of service indefinitely" due to high water damage in the vicinity of the Cimarron River. Washouts were also reported on the Santa Fe's lines between Guthrie and Enid and between Waynoka and Buffalo.

"Total destruction" of the Frisco's depot at Fremont, Mo., by a tornado was reported. Minor washouts occurred between Okmulgee, Okla., and Muskogee and on the Little Black River between Poplar Bluff, Mo., and Hoxie, Ark., resulting in two to three-day delays to service. But the Cimarron River bridge between Ames, Okla., and Okeene, washed out the week before (Railway Age, May 27, p. 11), was reported restored to service.

Heavy embankment damage was caused by wave action on Lake Texoma but no service disruptions resulted except for slight delays north of Denison, Tex. The road's Red River bridge between Davidson, Okla., and Vernon, Tex., remained out of service for the third consecutive week.

On Sunday night, May 26, the Trinity river at Dallas crested at 41.7 ft—almost 14 ft above flood stage. Damage to railroad property in the Dallas-Ft. Worth area, however, was negligible.

The T & P reported that, between Boyce, La., and Zimmerman, water stood over the road's tracks to a depth of 3 ft for some 200 ft. To maintain

(Continued on page 14)

Where did you see him?

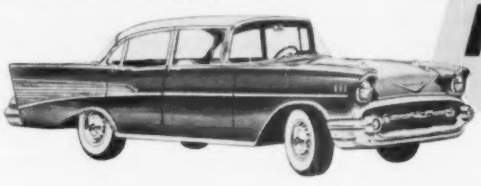
Easy. Just a while back, he appeared in one of our national magazine advertisements. We said he was a "fast worker." Know why? Because he's got The Hertz Idea!

Instead of wasting time on business trips, he goes the fast, comfortable way—by train. Then, at his destination, he rents a Hertz car—a bright, new Powerglide Chevrolet Bel Air or other fine car.

More people than ever are combining rail-auto travel. One reason is that our advertisements encourage readers to take the train. And of course, to have a Hertz car there. What's more, Hertz "Rent it here . . . Leave it there" now is available nation-wide at no extra charge (on rentals of $25.00 or more). Your passengers can leave the car in another Hertz city, and continue on their trip by train. This means more new business. And importantly, more *repeat* business!

Your ticket agents figure in this, too. For every Hertz car reservation they make, they get a 10% commission on the total rental fee. Besides this, terminals all over the country have Hertz counters or direct "Call a Car" phones.

How can you help? Mention the idea of renting a car in your advertising! For more information or free promotional materials write: Hertz Rent A Car, 218 South Wabash Avenue, Chicago 4, Illinois.



More people by far...use

HERTZ

Rent a car

MARKET OUTLOOK THIS WEEK

Freight Car Loadings

Loadings of revenue freight for the week ended May 25 were not available as this issue of Railway Age went to press.

Loadings of revenue freight for the week ended May 18 totaled 722,521 cars; the summary, compiled by the Car Service Division of the Association of American Railroads, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, May 18

District	1957	1956	1955
Eastern	114,266	124,160	129,020
Allegheny	141,757	155,564	149,785
Pocahontas	64,102	63,354	61,487
Southern	122,748	132,445	128,261
Northwestern	115,781	125,730	125,113
Central Western	111,620	119,111	119,264
Southwestern	52,247	58,633	56,949
Total Western Districts	279,648	303,474	301,326
Total All Roads	722,521	778,997	769,879
Commodities:			
Grain and grain products	47,914	50,082	48,521
Livestock	5,643	6,090	7,100
Coal	132,715	134,430	128,636
Coke	11,114	13,373	11,928
Forest Products	39,750	46,720	45,234
Ore	80,570	85,561	79,428
Merchandise l.c.l.	54,860	60,217	62,518
Miscellaneous	349,955	382,524	386,514
May 18	722,521	778,997	769,879
May 11	723,392	777,606	752,645
May 4	718,924	770,558	736,904
April 27	690,789	779,977	725,900
April 20	686,950	763,437	701,432
Cumulative total, 20 weeks	13,488,107	14,278,209	13,332,991

IN CANADA.—Carloadings for the seven-day period ended May 14 totaled 81,883 cars, compared with 79,273 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
May 14, 1957	81,883	32,500
May 14, 1956	86,121	34,376
Cumulative Totals:		
May 14, 1957	1,381,983	632,382
May 14, 1956	1,480,993	668,404

New Equipment

FREIGHT-TRAIN CARS

► *Production Record Set by ACF.*—A 3½-year record for one month's production in the freight-car-building industry has been claimed by American Car & Foundry division of ACF Industries; division, last April, shipped 1,927 freight cars, said to be industry's largest shipment since October 1953.

New Facilities

► *Argentina.*—Plans to buy 250 ballast cars have been announced by Argentine State Railways, according to Foreign Commerce Weekly; blueprints and specifications are obtainable, at about $20 a set, from Department of Acquisitions, Ministerio de Transportes de la Nacion, Empresa Nacional de Transportes, Corrientes 389, Buenos Aires.

► *Chicago North Shore & Milwaukee.*—Nearing completion of $57,000 repair and reconstruction to highway bridge and approaches at College avenue, near Milwaukee; raising, strengthening and widening of bridge was ordered by Wisconsin Public Service Commission.

► *Louisville & Nashville.*—Will expand use of two-way radio on its freight trains by installing radio communication equipment on 45 diesel locomotive units and 49 cabooses; equipment will be compact transistor type; installation also will include 94 extra "walkie-talkie" units for use on and about the trains; cost of equipment will approximate $280,000; when units are placed in service, L&N will have two-way radio on 122 locomotives and 127 cabooses.

► *NYC Program May Exceed $500 Million.*—New York Central's five-year improvement program begun in 1956 "could involve considerably more" than the originally contemplated $500,000,000 cost, says Alfred E. Perlman, NYC president; "it all depends on our cash," he stressed; Mr. Perlman said NYC "this year alone" is spending $250,000,000 in improving its freight equipment and related facilities.

► *Seaboard Air Line.*—Completed new two-story headquarters building for North Florida division at Jacksonville, Fla.; building, which cost about $400,000, will house all division and departmental offices formerly at 30 South Hogan street; two major offices—those of R. M. Stone, general superintendent, and J. N. McBride, general agricultural agent—will be moved from Savannah, Ga., and consolidated in the division building.

► *Union Pacific.*—Construction of million-dollar, five-story addition to this road's Omaha, Neb., headquarters building will start immediately, with completion scheduled for August 1958; first floor of new building will house an IBM 705 electronic data-processing machine to be leased, at monthly rental of about $45,000, for use in inventory control, payroll computation and other accounting work.

(Continued from page 11)
traffic across the line the road borrowed a steam locomotive from the FW&D. This locomotive, a T&P spokesman said, is "on standby."

Some slide damage was also reported on the road, closing one line to traffic for a week. Additional flooding is expected when the Lake Texoma dam is opened.

The Cotton Belt advised Railway Age that, despite flooding in Texas, total damage to date is estimated at $100,000. Schedules on the road were not affected except for a branch line operation south of Waco where track, bridges and embankments were washed out several times and repeatedly repaired.

As this issue went to press, the Missouri Pacific reported that some rivers affecting its territory in the southwest were still rising with crests expected in some locations late last week. The road estimated damage from floods and tornadoes since the first of May at approximately $160,000. Meanwhile, the U. S. Weather Bureau predicted more showers and thunderstorms for the southwest.

Air Lines Still Getting the Business

Regularly scheduled domestic air lines in 1956 handled 68.4% of combined first-class air and rail passenger-miles and 32.1% of the combined coach business. Comparable 1955 figures were 66% and 27.9%, respectively.

This showing of the air lines' continuing gains was reported by the ICC's Bureau of Transport Economics and Statistics in its "Transport Economics." Other comparative figures are shown in the accompanying table. The air figures are confined to the regularly scheduled domestic trunk lines, and thus do not include "irregular" and territorial carriers, helicopter services, or local and feeder lines.

The ICC bureau also released other data confirming previous estimates to the effect that air travel in 1956 was about three times more hazardous than travel by rail (Railway Age, Feb. 4, p. 7). The figures show that last year's passenger-fatality rate of the railroads was 2.02 per billion passenger-miles. The rate for regularly scheduled domestic air lines was 6.18.

These compared, respectively, with rates of 0.67 and 9.49 in 1955, when air travel was more than 14 times more hazardous than travel by rail. This air-line rate included 39 passengers killed in a sabotage accident excluded from figures issued by the Civil Aeronautics Board. On that basis, the air lines' 1955 rate became 7.6, making them about 11½ times more hazardous than railroads. ICC figures on which railroad passenger-fatality rates are based include deaths in accidents attributed to sabotage.

Air vs. Rail Revenue Passenger-Miles (millions)

Year	First-class Class I rail parlor and sleeping car	First-class Air regular flights*	First-class Percent air of rail and air combined	Coach Class I rail excluding commutation	Coach Air	Coach Percent air of rail and air combined
1946	19,801	5,903	23.0	39,039	..	..
1947	12,261	6,016	32.9	27,660	..	..
1948	11,015	5,840	34.6	24,315	..	..
1949	9,349	6,322	40.3	20,273	249	1.2
1950	9,338	6,710	41.8	17,443	1,056	5.7
1951	10,226	8,939	46.6	19,524	1,272	6.1
1952	9,504	9,775	50.7	19,758	2,346	10.6
1953	7,950	10,580	57.4	18,955	3,717	16.4
1954	6,850	10,925	61.4	17,687	5,321	23.1
1955 r	6,440	12,501	66.0	17,307	6,716	27.9
1956	6,275	13,577	68.4	17,074	8,066	32.1

* As air coach service began in 1948, the "regular" figure for that year contains a small number of air coach passenger-miles.
r Revised.

Railroads Seen 'Stronger than Ever'

Railroads today are "stronger economically and technologically than they have ever been in history." The reason for their growing inherent strength is that they are rapidly getting out of the "retail transportation" jobs that they are poorly fitted to perform —and are concentrating on mass transportation tasks, where their technological and economic superiority is conceded to be greatest.

This favorable outlook on railroads was presented in Cleveland May 22—to the National Federation of Financial Analysts Societies.

James G. Lyne, editor of Railway Age, told the analysts that obstacles to railroad prosperity are "institutional, not technological or economic." They arise, he said, from traditional service and rate patterns which have been "frozen into rigidity" by law and regulatory precedent.

These "frozen" patterns are due to thaw, he added, because of competitive pressures from private and other unregulated carriers. He suggested that there is considerable parallel between railroads and electric utilities, and raised the question of whether methods which have been so successful in building up the utilities' business might not be similarly successful on railroads.

Mr. Lyne's comments on the railroad outlook came during a transportation panel session in which other participants were Robert J. Smith, president of Slick Airways, and Arthur Genet, president of Greyhound Corporation.

Talking air transport, Mr. Smith asked the analysts to look at air freight—not by comparing its costs with those of other forms of transportation—but by comparing total costs of production and distribution when air freight is used and when it is not.

Overall production costs, from reduced inventory to high-cost goods, may very well be lower, he said, when high-cost but fast air-freight is used, than when the choice falls to lower-cost but slower transport.

Mr. Genet said Greyhound's passenger-miles are running ahead of last year's. Big cities, he asserted, are "on the way out" and future population will be strung out along the superhighways. The bus is going to be the main means of for-hire travel to serve the country as this new pattern of population distribution develops, he declared.

Milwaukee Loses Spokane Gateway Case

The Milwaukee has lost the Spokane gateway case.

The Interstate Commerce Commission has dismissed the road's complaint against the Spokane, Portland & Seattle for refusing to accord it the same joint-rate and through-route arrangements, via Spokane, Wash., that the Spokane maintains with its parent lines, the Great Northern and Northern Pacific. The commission found that the proposed rates and routes had not been shown to be necessary or desirable in the public interest in order to provide adequate and more efficient and more economical transportation.

As to Spokane's arrangements with its parents, the commission concluded that "the SP&S system is operated under a common management and control with, and its traffic policy is con-

trolled by, the Great Northern and Northern Pacific, and therefore must be considered as part of the latter carrier systems."

The report noted that Commissioner Hutchinson concurred in the result of the decision. Commissioners Freas, Winchell and Murphy, "being necessarily absent," did not participate in the disposition of the proceeding which was No. 31466.

PRR Would Change Par Value of Common Stock

The Pennsylvania has applied to the ICC for approval of a plan whereby it would change the par value of its common stock from $50 per share to $10 per share. The plan, approved by PRR stockholders at their recent annual meeting, contemplates issuance of 13,167,754 shares of $10-par stock to be exchanged on a share-for-share basis for a like number of $50-par shares now outstanding.

Total number of authorized shares would also remain the same at 17,400,000. The application explained that balance-sheet changes would involve reducing the capital stock account by $526,710,150 and adding a like amount to paid-in capital surplus. Anticipated benefits include lower stock transfer taxes, clearance of the way for issuance of stock and bonds convertible into stock (sale of stock for less than its par value is prohibited by Pennsylvania law), and for making a stock-option plan effective.

Cost of Alleghany's MoPac Fight Is Tax Deductible

The United States Tax Court has held that the Alleghany Corporation properly charged to operating expenses the costs it incurred in opposing Missouri Pacific reorganization plans which proposed to wipe out the "old common stock" of that road. The charges at issue totaled $541,113.64, and they were included in Alleghany operating expenses in the years from 1948 through 1952.

The Collector of Internal Revenue disallowed most of the charges as deductions from gross income for income-tax purposes, and Alleghany's appeal brought the case before the tax court. The court noted that the MoPac reorganization plan finally adopted permitted Alleghany to exchange old common (for which it had paid $31,032,312), for Class B stock in the reorganized company having a market value of $9,256,500.

Union Pacific Farm Exhibit Car Ends Tour

Would-be farmers file aboard Union Pacific agricultural improvement car during stop in recently completed tour of agricultural centers on UP's lines. Staffed with the railroad's agricultural agents, the car displays material pertinent to farm topics discussed at different locations. Recent itinerary, car's tenth, was termed "very successful."

To protect this investment was well within the scope of Alleghany's business, the court said. In a brief dissenting opinion, Judge Turner indicated he would find the Alleghany expenditures to have been additional costs of the Class B shares it received in the reorganization—not a deductable expense.

Signal Team Studies European Track Circuits

At the request of the Association of American Railroads, representatives of the Federal Telephone & Radio Company conducted investigations in Europe to gain new information about signaling problems in various countries there.

W. R. Treim retired operating officer of the Pennsylvania, and W. S. Storms retired signal engineer of the Erie, inspected railroad installations in Great Britain, Belgium, Holland, Germany, Switzerland and France. They worked with representatives of International Telephone & Telegraph, Federal's parent company. The inspection trip revealed, among other things, these highlights:

British rail lines have experienced shunting problems not only with lightweight self-propelled cars but also with short wheel-base switch engines and four-wheel (two-axle) small capacity freight cars. Disc (off-tread) brakes have been replaced with clasp brakes.

The Low Countries have changed track circuits from d.c. to a.c, and replaced single-element vane relays, with two-element relays, to overcome shunting difficulties. Voltages in some instances have been raised to as high as five volts to increase shunting sensitivity. Track instruments are in general use to supplement track circuits at highway crossings and at interlockings.

Two types of lightweight equipment are used in Germany—(1) No shunting trouble has been experienced with a single-unit car with power units at each end, relatively heavy, with on-tread brakes and manual sanding; and (2) on a lightweight single unit with two axles and disc off-tread brakes, failures to shunt track circuits, when wheel surfaces get dirty, are common. Track circuits supplemented by track instruments are used at interlockings and at signal boxes for manual block signaling. Proposed automatic short-arm gates for crossing protection are to use track instruments and short track circuits. The Lorenz electronic track circuit is in service in automatic block signal territory in the Saar.

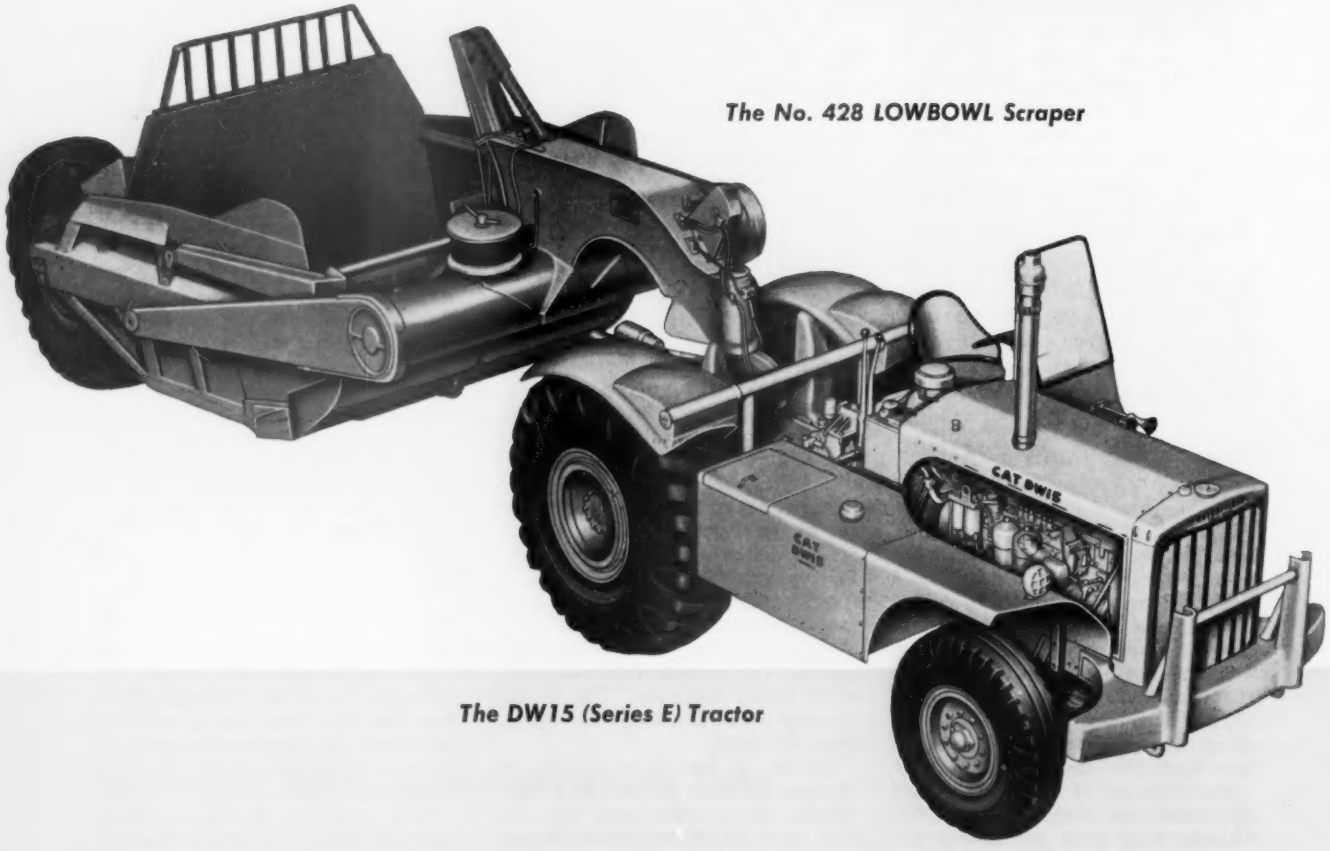
In Switzerland the newest self-propelled electrically operated lightweight passenger units have four axles, clasp brakes, and no automatic sanding. An automatic device on electric locomotives prevents wheel slippage on driving wheels, and the engineman's sand valves normally are sealed (Railway Age, Dec. 4, 1956, p. 24).

New equipment in France features on-tread brakes. Automatic sanding equipment has been removed from all equipment. The SNCF has developed an electronic track circuit, six of which have been installed. Where ordinary track circuits are used, track instruments are installed at fouling points, and to check on single-unit lightweight cars.

(Turn to page 18)

CATERPILLAR ANNOUNCES

NEW DW15 (SERIES E) AND NEW No. 428 LOWBOWL SCRAPER



The No. 428 LOWBOWL Scraper

The DW15 (Series E) Tractor

Here's a new Cat team loaded with features that add up to one thing—A HIGHER PRODUCTION RETURN ON YOUR INVESTMENT. See your Caterpillar Dealer for details on this great team's performance.

GET THE STORY IN BRIEF ON THE OPPOSITE PAGE ▶

A GREAT TEAM: The performance of the DW15 (Series E) Tractor and No. 428 Scraper can be summed up simply: bigger loads—faster.

FACTS ABOUT THE DW15 (SERIES E) TRACTOR

Around the world, the DW15 has proved that it can move material faster and more profitably than competitive machines in its class. Now there's a new DW15 (Series E) to give you even higher production. This is the story:

ENGINE: A new Caterpillar D326 Engine, designed especially for the DW15 (Series E), develops 200 HP (maximum output capacity).

And Caterpillar research has produced a 23% torque rise in this new engine! This means that high tractor rimpull is maintained through a wide range of travel speeds in each gear, and the need for gear changing is decreased. In fourth gear, for example, over 3,000 pounds of rimpull are delivered at travel speeds from 9 MPH all the way to 18 MPH. A new engine, yes—but with these traditional Caterpillar advantages: uses inexpensive No. 2 furnace oil without fouling; needs no fuel system adjustments; requires no cleaning of fuel injection valves.

TRAVEL SPEED: The DW15 (Series E) offers ten speed selections, from 2.7 to 37.2 MPH. But, more important, it provides four-wheeled sure-footedness—*the ability to use the speed on the job.* Operators ride with more comfort, feel greater stability. They travel faster, and in safety.

MANEUVERABILITY: Four-wheeled stability means faster cycle time because the DW15 (Series E) can make short radius turns at higher speeds. It can turn without stopping inside a 35-foot diameter and in a smaller area through use of a turn-back-turn maneuver.

VERSATILITY: The DW15 (Series E) provides versatility that far surpasses similar sized two-wheeled machines. It can be unhitched from its scraper and used as an independent unit to tow compactors, water wagons or other units, and it can be teamed with the Athey PR15 Wagon for rock hauling work.

FACTS ABOUT THE No. 428 LOWBOWL SCRAPER

CAPACITY: Struck—13 cu. yd.; heaped—18 cu. yd.

ADVANCED DESIGN: There is more to Caterpillar's exclusive LOWBOWL design than a low bowl profile. Width and length proportions are designed to give maximum loading efficiency. And every component—particularly the apron, ejector, cutting edge—is likewise designed to do its part in achieving capacity loads.

LOADABILITY: The final result of this careful engineering is this: bigger loads—faster. LOWBOWL design gives the new Caterpillar No. 428 Scraper a faster loading rate because incoming material meets less material resistance and less friction from the load already in the bowl. While other scrapers are still in the cut struggling for the last few yards of their load, the new Cat units are on their way to the fill—with big pay loads!

NEW FEATURES: Outstanding new features of the No. 428 include: increased ground clearance—for high-speed travel in rough going; increased apron lift—for faster ejection of any material; large area pushblock—for better pusher contact.

NEW TIRES FOR THE DW15-No. 428

Both the CAT* DW15 (Series E) Tractor and No. 428 Scraper feature 26.5-25 wide-section tubeless tires—the product of extensive co-operative research by Caterpillar Tractor Co. and leading tire manufacturers. Tubeless tires offer load-carrying capacity comparable to conventional tires at a *reduced inflation pressure.* This gives better flotation and traction while decreasing rolling resistance. The wider tire treads take a "grouser like" bite, making more efficient use of engine horsepower. And tubeless tires eliminate 80% of the down time caused by tire failure.

Caterpillar Tractor Co., Peoria, Illinois, U. S. A.

CATERPILLAR*

*Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.

ONE GOAL: To concentrate our capabilities, resources and experience on the design, manufacture, distribution and service of job-tested heavy equipment.

Canadian Railway Pioneer Honored

A plaque was unveiled at the Dominion Observatory Building at Ottawa last month commemorating the services of Sir Sandford Fleming who conducted pioneer engineering surveys coast to coast for the Canadian railways. N. R. Crump, second from left, president of the Canadian Pacific, of which Sir Sandford was a director, participated in ceremonies. He is shown with Viscountess Hardinger, grand-daughter of noted scientist, and Astronomer C. S. Beals, left, the Rev. A. I. Burnett and Dominion Archivist W. Kaye Lamb with tablet showing in rear.

CTC from Tape Recordings Used by SAL on Moving Day

Tape recordings were used by the Seaboard May 27 and 28 to send line control codes from the dispatcher's office in Jacksonville, Fla., to the centralized traffic control territory between there and Miami, during the time required to move the control machine three miles to a new office building.

Prior to the moving day, 30 catalogued libraries of tape-recorded sound impulses were taken directly from actual control codes transmitted by the control machine. While the machine was out of service, the recordings were "played back" into the control system as required by the dispatcher, to control any of the 142 switches and signals on the 406 miles of CTC.

Financial

Authorizations

CHICAGO & EASTERN ILLINOIS.—To issue not exceeding 40,000 shares of common stock without par value, pursuant to provisions of a restricted stock option plan, to be sold to certain salaried officers and employees of the applicant and its wholly owned subsidiaries; proceeds from the sale to be used for general corporate purposes.

VIRGINIAN.—To issue not exceeding 5,922,650 shares of capital stock of the par value of $10 a share—consisting of 2,795,500 shares of 6% cumulative preferred stock and 3,127,150 shares of common stock—to effect a reclassification and split, on a 2½-for-1 basis, of the applicant's outstanding $25-par-value stock.

Dividends Declared

ALABAMA GREAT SOUTHERN.—ordinary, $4, semiannual; 6% participating preferred, $4, semiannual, both payable June 24 to holders of record May 31.

CHICAGO GREAT WESTERN.—common, 50c, increased, payable July 5 to holders of record June 18; 5% preferred, 62½c, quarterly, payable June 28 to holders of record June 18.

CHICAGO SOUTH SHORE & SOUTH BEND.—15c, quarterly, payable June 15 to holders of record June 5.

DETROIT, HILLSDALE & SOUTH WESTERN.—$2, semiannual, payable July 2 to holders of record June 18.

ILLINOIS CENTRAL.—$1, quarterly, payable July 1 to holders of record June 5.

KANSAS, OKLAHOMA & GULF.—6% preferred A, $3, semiannual; 6% preferred B, $3, semiannual; 6% preferred C, $3, semiannual, all paid June 1 to holders of record May 18.

NASHVILLE & DECATUR.—guaranteed, 93¾c, semiannual, payable July 1 to holders of record June 20.

NEW YORK, CHICAGO & ST. LOUIS.—50c, quarterly, payable July 1 to holders of record May 31.

NORTHERN PACIFIC.—45c, quarterly, payable July 26 to holders of record July 5.

WHEELING & LAKE ERIE.—common, $1.43 ¾, quarterly; 4% prior lien, $1, quarterly, both payable August 1 to holders of record July 12.

Applications

CENTRAL OF GEORGIA.—To assume liability for $2,550,000 of equipment trust certificates to finance in part the acquisition of 5 diesel-electric road switching locomotives and 250 covered hopper cars at an estimated total cost of $3,210,698. The locomotives would be purchased from Electro-Motive Division of General Motors Corporation at an estimated unit cost of $174,867. The cars would be purchased from Pullman-Standard Car Manufacturing Company —200 at an estimated unit cost of $9,016 and 50 at $10,462. The certificates would mature in 30 semi-annual installments of $85,000 each, beginning next December 1. They would be sold by competitive bids which would fix the interest rate.

Technical Tidings

Selected from June Railway Monthlies

The railway passenger car which is independent of everything but motive power offers many advantages to the operating department. The energy required for both cooling and heating can be generated on each car of a passenger train. Both undercar power plants and reverse cycle heating are practicable. Such cars are described in Railway Locomotives and Cars.

●

Railways in New Zealand have started an extensive program of installing automatically controlled crossing gates, special features being automatic selections by means of which those suburban trains that are to stop at certain stations do not put down the gates until after they make the station stop. These and other controls are explained in Railway Signaling and Communications.

●

Steel lining is now going into standard box cars—Pullman-Standard PS-1's for the Southern. The 3/16-in. metal lining extends only 6 ft up the car side, and plywood is used above it. The steel lining is coated with neoprene for protection of the lading and of the lining. How this was done at Pullman-Standard's Birmingham plant is told in Railway Locomotives and Cars.

●

Renewing turnouts is a routine operation, but there are ways of doing it that will reduce costs and save time. An article in Railway Track & Structures describes, step by step, a procedure that gives good results on the Chicago Terminal division of the Illinois Central.

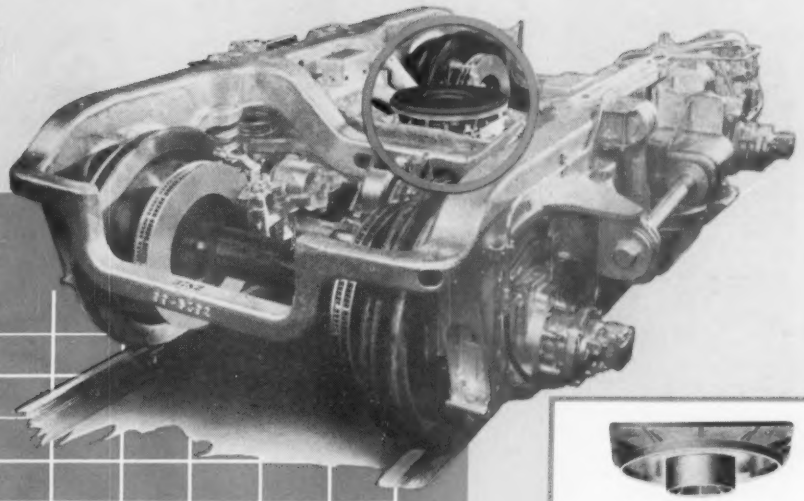
●

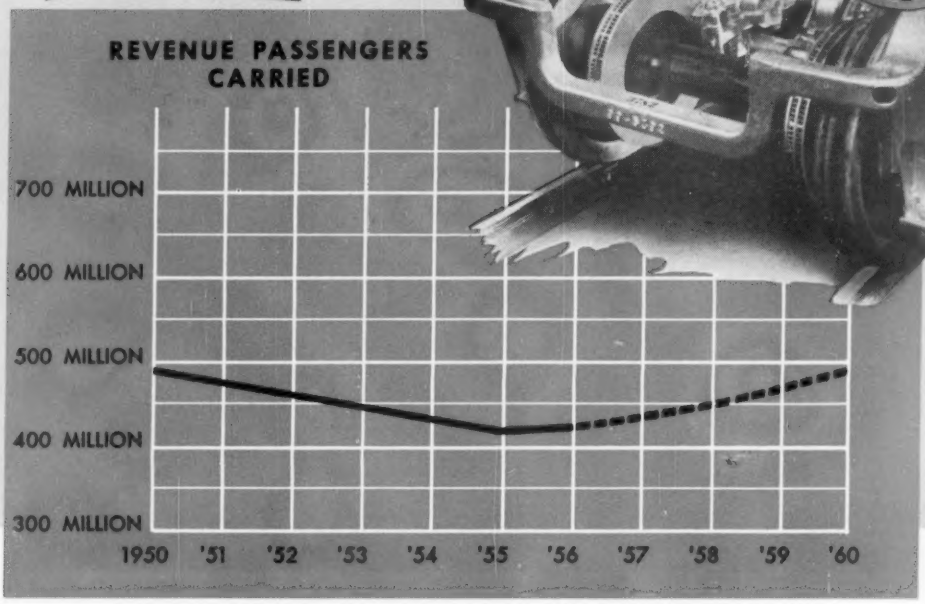
Panels of experts, at the recent convention of the AAR Communications Section, discussed new developments in electronics, and modern methods of educating employees, all of which are described in Railway Signaling and Communications.

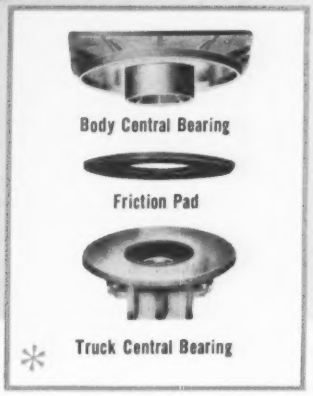
●

Patching repairs aren't the economical method for keeping a freight-car fleet ready to do its job, according to the Baltimore & Ohio. The road is doing something about this concept. It has tooled up one shop to do only the heaviest repairs and is standardizing designs of its cars into only a few styles which will simplify stores and shopping problems. The program and shop are the subjects of an article in Railway Locomotives and Cars.

Reverse the Trend in Your Passenger Revenue







Provide Greater Passenger Comfort with Commonwealth Central Bearings

Better riding of sleeping cars, diners and coaches means more comfort, attracts more passengers and increases your revenue.

Central Bearings which occupy the space formerly used by center plates provide a simple, positive way to assure smoother, more comfortable riding of existing cars, as well as new equipment. They eliminate lateral shimmy and side bearing problems. In addition they increase mileage between wheel turnings, decrease maintenance expense.

*Available in a simple easy-to-install package—Central Bearings are readily applied to existing cars.

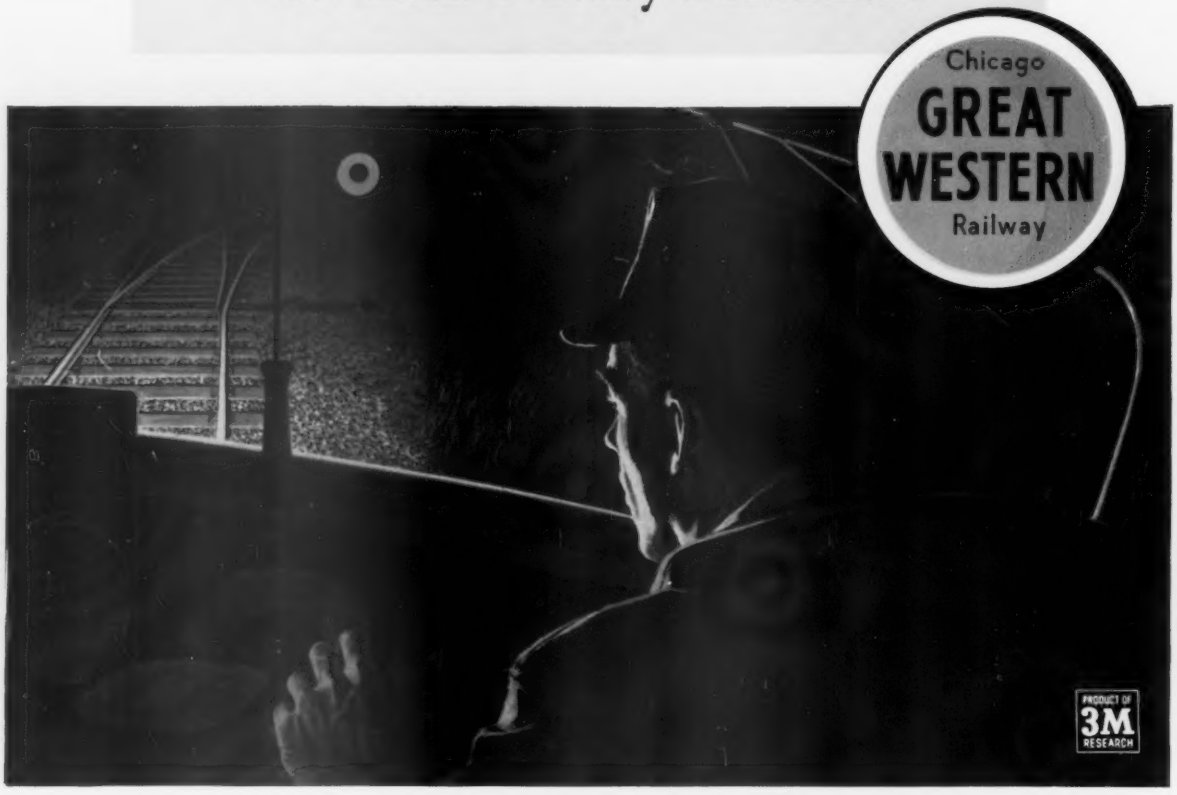
To attract more passengers—increase revenue and lower costs—use Commonwealth Central Bearings.

GENERAL STEEL CASTINGS

GEARED TO PROGRESS
P R I
MEMBER

GRANITE CITY, ILL. • EDDYSTONE, PA. • AVONMORE, PA.

How the Chicago Great Western Prevented a Costly Derailment



. . . with switch targets of "SCOTCHLITE" Reflective Sheeting

Through the dark night of January 7th, Chicago Great Western's passenger train No. 14—bound for Omaha—approached the Lyle, Minnesota stop crossing. In the beam of his headlight, the engineer spotted the vivid warning of a red switch target of "Scotchlite" Reflective Sheeting indicating that the switch was wrong. Immediately he applied his brakes in emergency. Result: only the forward trucks of the engine were derailed. Train 14 was on its way again with minimum delay.

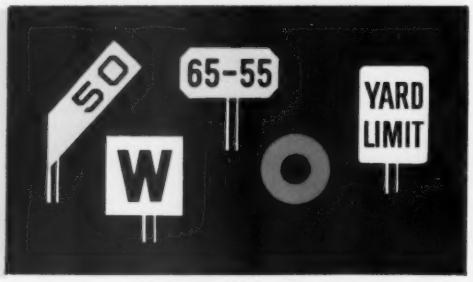
Says E. T. Reidy, V.P. and General Manager of Chicago Great Western: "The diesel probably would have overturned if the engine hadn't picked up that reflectorized switch target."

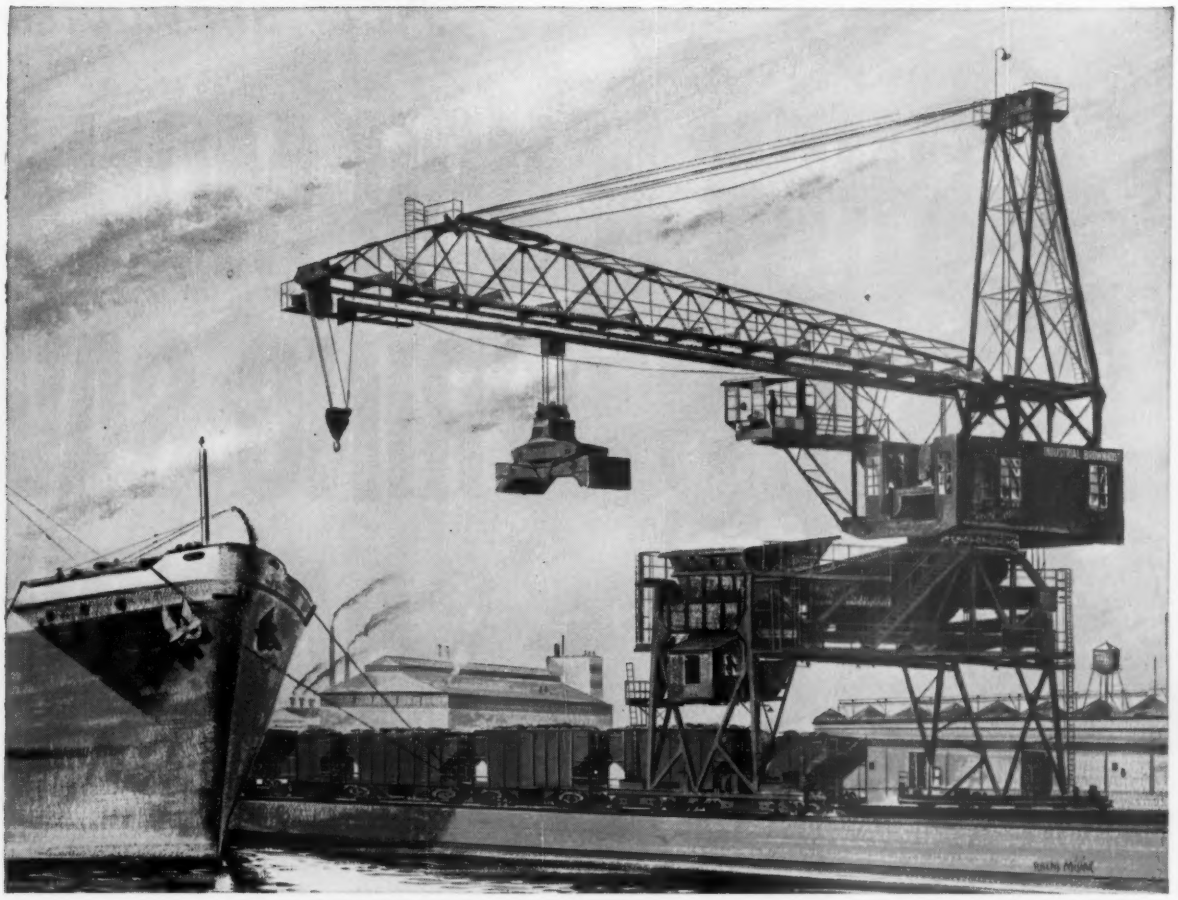
Switch targets of "Scotchlite" Sheeting—*as visible by night as by day*—are far safer than painted targets. They are self-cleaning, give dependable all-weather protection . . . and years of low-cost, trouble-free service. For full details, write Dept. FQ-637, Reflective Products Division, 3-M Company, St. Paul 6, Minnesota.

Signs of "SCOTCHLITE" Reflective Sheeting Give Safe 24 Hour Train Control

WIDE ANGLE FLAT-TOP®
REG U.S. PAT. OFF.
SCOTCHLITE
BRAND
REFLECTIVE SHEETING

The terms "Scotchlite" and "Flat-Top" are registered trademarks of Minnesota Mining & Mfg. Co., St. Paul 6, Minn. General Export: 99 Park Avenue, New York 16, N. Y. In Canada: P. O. Box 757, London, Ontario.





how 75 ton BROWNHOIST combination crane will greatly increase GALVESTON port facilities

The latest type combination boat-unloading crane being engineered and built by Industrial Brownhoist in Bay City, Michigan will substantially improve facilities in the Port of Galveston's 1957 expansion program.

This big, fast-working Brownhoist crane loads or unloads bulk materials from ship-to-cars or cars-to-ship at the remarkable rate of 540 tons per hour! Equipped with 75 foot boom, on which travel both a hook and a Brownhoist-made, 80 cubic foot flush link-type bucket. The entire unit straddles three railroad car tracks located on the pier.

In addition to boat unloading equipment and material handling bridges, Industrial Brownhoist manufactures Diesel-Electric locomotive cranes from 25 to 90 tons, and railroad cranes up to 250 ton capacities. If your firm can profit from reliable, high-speed, high-capacity material-handling equipment, write for new general Catalog No. 562.

201

BROWNHOIST

CLAMSHELL BUCKET

250 TON WRECKING CRANE

COAL-ORE BRIDGE

CAR DUMPER

LOCOMOTIVE CRANE

INDUSTRIAL BROWNHOIST CORPORATION, BAY CITY, MICHIGAN • DISTRICT OFFICES: New York, Philadelphia, Cleveland, Chicago, San Francisco, Montreal, Canada • AGENCIES: Detroit, Birmingham, Houston

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Now available–at

HOW MUCH MONEY THIS SPRING SAVE YOUR

no extra cost . . .

CAN ON RAILROAD?

Only you can answer that question—because only you know what your spring-replacement costs are. But, *the higher they are, the more you will save with ASF Extended Life brand springs.*

That's because test after test in the laboratory proves that Extended Life Springs outlast ordinary springs an average of ten to one. The test results are so conclusive that it is not a question whether they will last longer under your cars, but only how many *times* longer. Here's a way to find out: Specify new ASF Extended Life Springs where types of service or runs result in bad-order cars due to spring failure. You'll soon find that you get premium service—at no premium in price!

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A contribution to railroad progress...through research by

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Friction Draft Gear
Type NY-11-F
Certified A.A.R.

Friction does it

...and does it well!

Effectively... the Westinghouse Friction Draft Gear puts friction to work. For the *smooth start* of a freight train, there is a soft initial action. Then when the BIG impact comes, the Westinghouse Gear is ready instantly with its HIGH shock-absorbing capacity. The initial action blends smoothly into a high ultimate frictional resistance.

In other words, the shock is absorbed by friction before it reaches the car and lading. Thereby, Westinghouse Friction Draft Gear cuts lading damage to a minimum; constantly stands guard against unnecessary rolling stock maintenance costs. Continuing research and development *keep* the Westinghouse Gear practical and economical...as well as effective!

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332 S. Michigan Ave., Chicago 4, Illinois
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Specify
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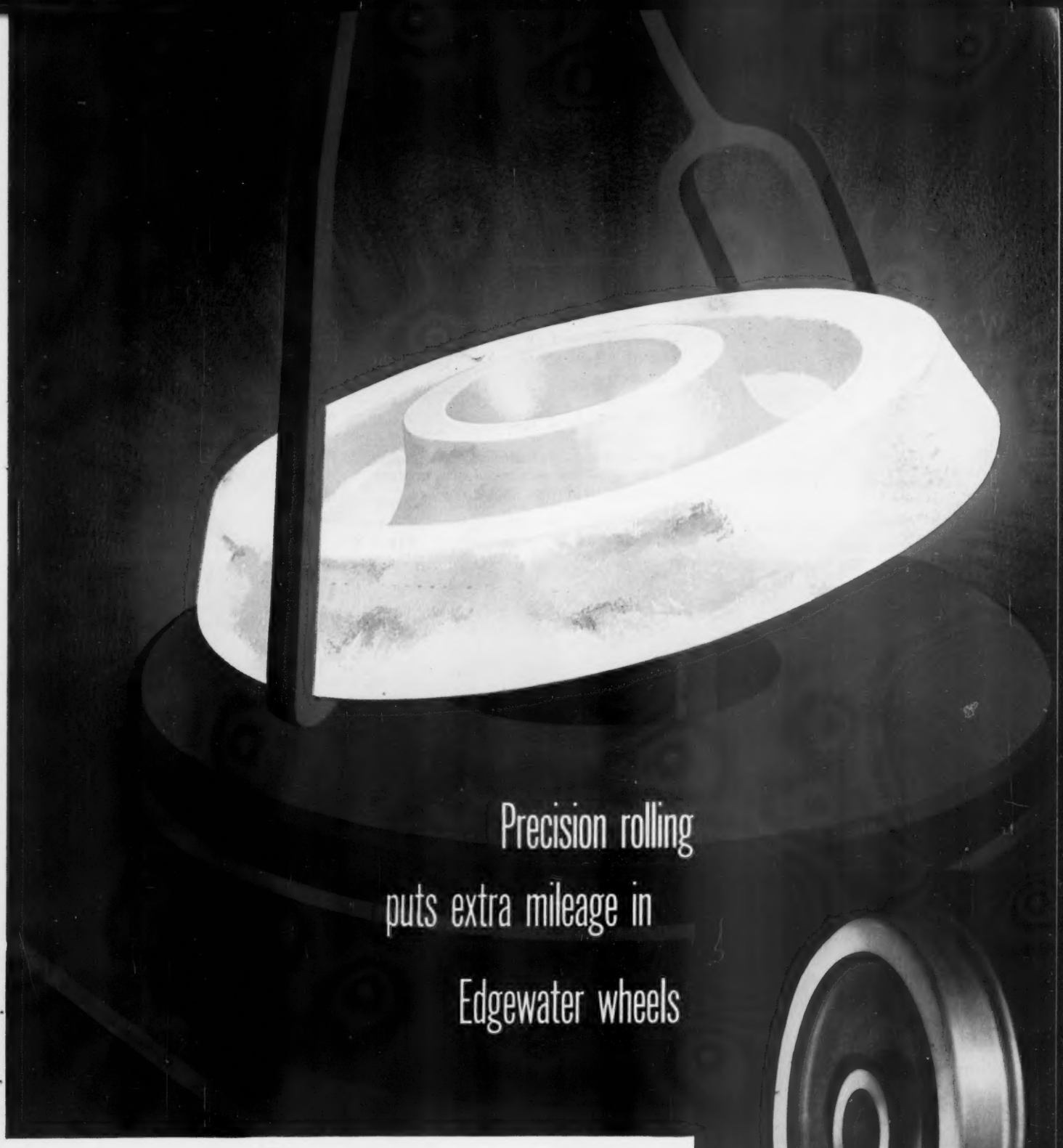


Precision rolling puts extra mileage in Edgewater wheels

The forged wheel blank shown above is about to be rolled and expanded to final rim contour and size on the Edgewater Wheel Rolling Mill—the most powerful mill of its kind in the world. The rolling process, plus advanced metallurgical techniques account for the extra mileage of Edgewater Wheels.

Edgewater Steel Company

P. O. BOX 478, PITTSBURGH 30, PENNA.

SEARCH TO PROGRESS
P R I
MEMBER

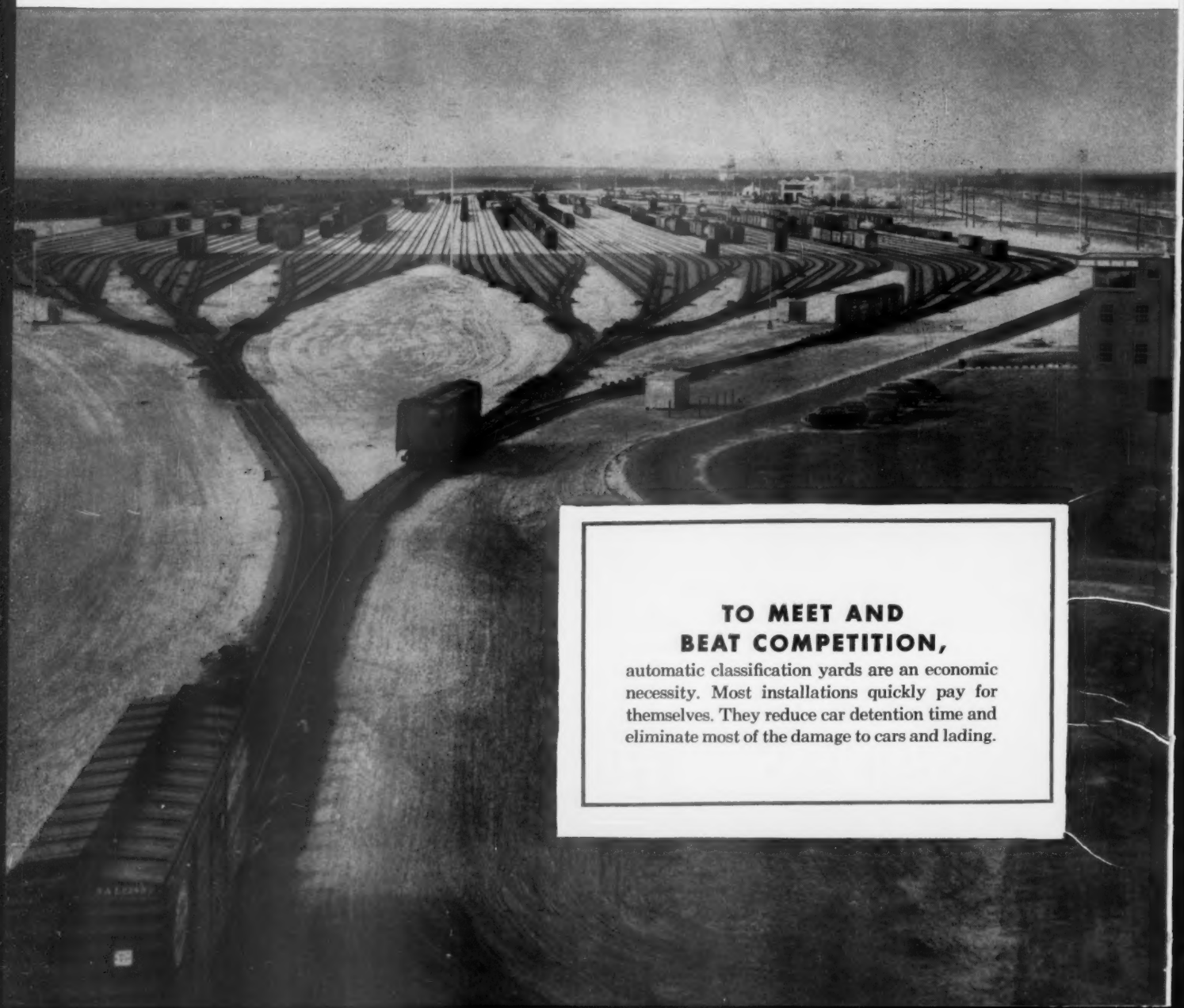
Only VELAC is Fully Automatic!

WHAT MAKES a classification yard fully automatic? We believe the following components are essential:

- Programmed switching to permit cut list to be automatically fed into automatic switching system.
- Switch machines that operate quickly.
- Retarders that provide immediate response to changes in braking requirements.
- Automatic Retarder control for precise regulation of car speeds.
- Sensing devices to measure car weight, tangent track rolling resistance, curved track rolling resistance and distance car must travel.
- Electronic computer that instantly evaluates information from sensing devices in order to release each cut of cars for a safe coupling to prevent impact damage.
- A control machine that provides basic operational information necessary for over-all yard coordination with essential finger-tip controls for use when required.

Union Switch & Signal's VELAC Automatic Classification Yard System is the only one that provides all the components necessary for a *fully automatic* yard.

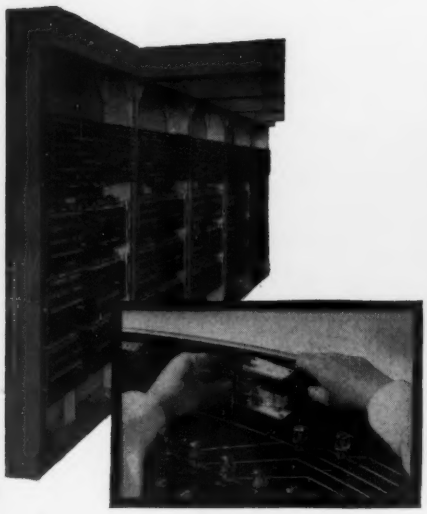
Write or call our nearest office for complete information.



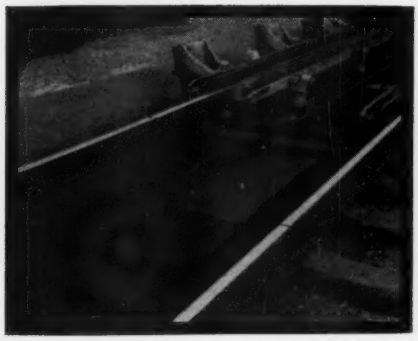
TO MEET AND BEAT COMPETITION,

automatic classification yards are an economic necessity. Most installations quickly pay for themselves. They reduce car detention time and eliminate most of the damage to cars and lading.

Classification Yard System

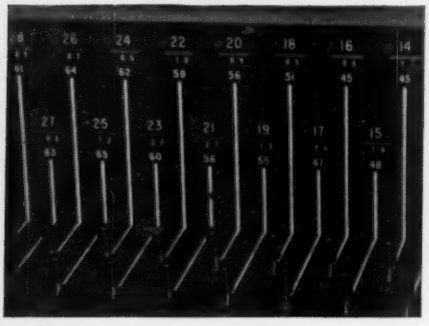


PROGRAMMED SWITCHING
This UNION development permits an operator to classify an entire train with one push of a single button. A perforated tape containing the track destination of each cut is fed into the automatic switching system which sets up the required routes automatically.

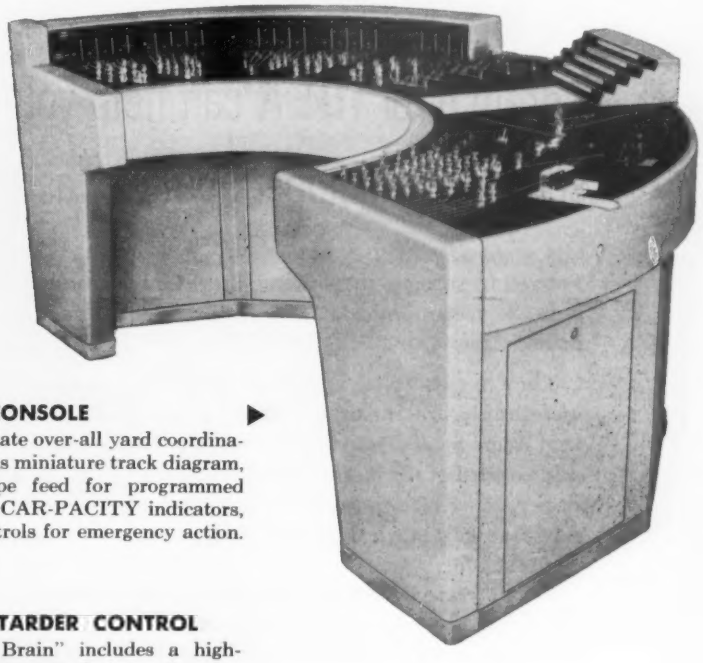


AUTOMATIC SPEED CONTROL
This provides automatic control of retarder pressure to obtain the desired velocities determined by the computer. Photo shows antenna for radar used in VELAC System to continuously measure velocity and acceleration from which rolling characteristics are determined.

WEIGHT CONTROL
Weight information is used to automatically select desired leaving speed and braking pressure of the master retarder. It is also used to preset the final retarders to obtain greater accuracy in leaving speeds.



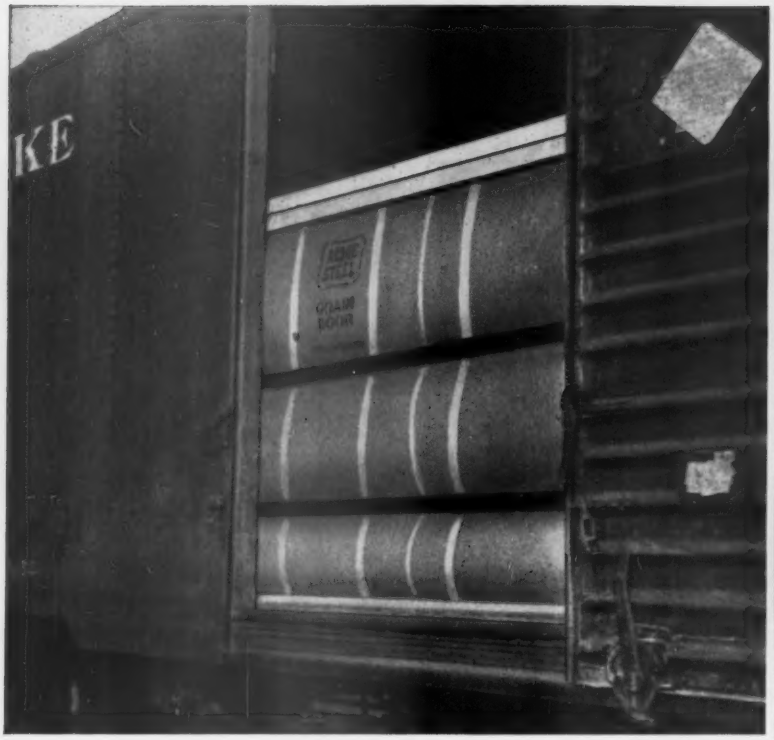
CLASSIFICATION TRACK CAR-PACITY
Automatically determines the number of cars on each classification track and transmits this information to the electronic computer. Photo shows CAR-PACITY indicator, showing remaining track capacity as another factor in calculating final leaving speed.

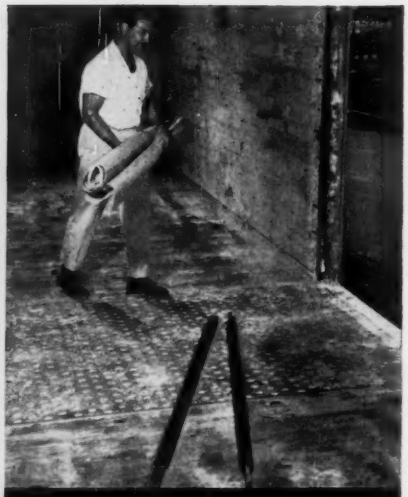


NEW U-TYPE CONSOLE
Arranged to facilitate over-all yard coordination, panel contains miniature track diagram, indicator and tape feed for programmed switching system, CAR-PACITY indicators, and finger-tip controls for emergency action.

AUTOMATIC RETARDER CONTROL
This "Electronic Brain" includes a high-speed computer of our own design and manufacture. It combines information from the sensing devices with information concerning individual track and external conditions, instantly calculates proper leaving speed, and automatically controls the retarders to assure that each car couples at just the right speed.

UNION SWITCH & SIGNAL
DIVISION OF WESTINGHOUSE AIR BRAKE COMPANY
SWISSVALE, PENNSYLVANIA
NEW YORK.....PITTSBURGH.....CHICAGO.....SAN FRANCISCO





ONE MAN . . . FIVE MINUTES . . . Acme Steel furnishes all the parts, just unroll the package, drive ten nails per door and the Acme Steel Grain Door is in place.

STRONG . . . TIGHT . . . severe tests prove that the Acme Steel Grain Door can take all the punishment encountered under all handling and transit conditions.

NO BULGE . . . EASY TO LOAD and UNLOAD . . . horizontal steel beams and vertical steel slats prevent bulge from springing the car door. Automatic and manual unloading are fast and easy.

this ACME STEEL grain door **IDEA** can help you serve grain shippers better, faster

Proved in service, these Acme Steel Grain Doors provide a fast, economical barrier for grain or malt shipped in box cars.

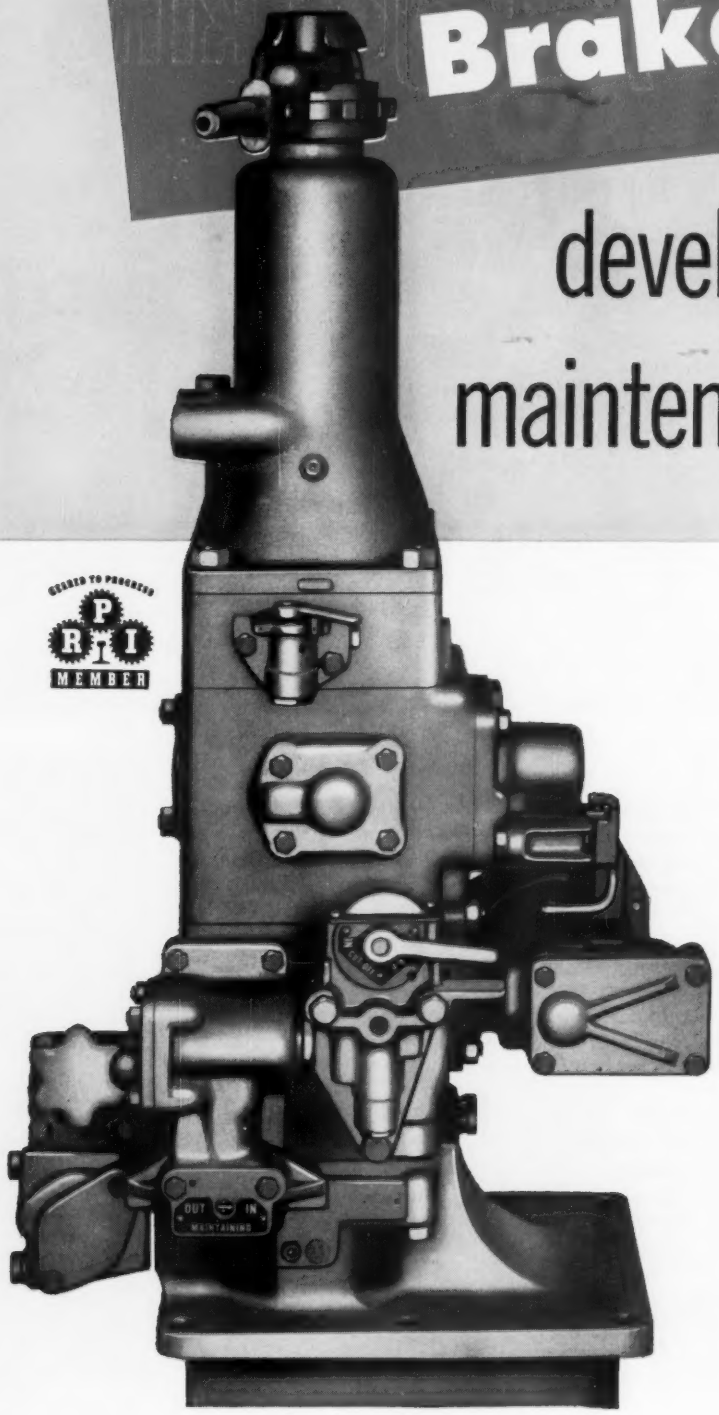
They're easy to set up for loading. Unloading is fast and simple. In transit, or during loading and unloading, Acme Steel Grain Doors assure positive protection and control of the load. Heavy, reinforced, high quality paper, supported by horizontal steel beams and vertical, flexible steel slats holds grain load securely and clear of the car door.

Let an Acme Idea Man give you a demonstration, or show you the new fact-packed Acme Steel Grain Door movie, or write for folder today. There is no obligation. Dept. RAG-67, Acme Steel Products Division, Acme Steel Company, Chicago 27, Ill.

ACME STEEL GRAIN DOORS

DS-24-M Brake Valve

develops outstanding maintenance economies



THE Brake Pipe Pressure Maintaining Feature provides more uniform distribution of braking throughout the train. It develops these outstanding maintenance economies—

1. Less rigging maintenance and fewer damaged brake heads.
2. More uniform brake shoe wear.
3. Reduced wheel damage from overheating at front end of train.

These economies can be realized on 24-RL Brake Valves now in service by substituting a Conversion Filling Piece for the existing filling piece.

Write for our Circular Notice No. 1130 which gives complete details.

Westinghouse Air Brake COMPANY

AIR BRAKE DIVISION WILMERDING, PENNA.

Before you invest in make sure you get king—

Make sure you don't wear blinders when you invest in king-sized crawler power!
Make sure every dollar you invest buys the top pay-off power features. Look to the International TD-24 for the most profitable king-sized crawler performance your money can buy!

Make sure you don't dissipate dollars on a king-sized machine with load-limiting, "dead-track drag"!
The useful load of any king-sized, steering-clutch crawler is limited to what it can pull or push on turns. "Dead-track drag" hogs horsepower!

Exclusive and years-proved Planet Power steering gives the TD-24 full-time live power on both tracks. Upgrade or down, the TD-24 pulls or pushes its big loads on the turns or straight ahead, *with both tracks!*

Make sure you don't drop big money in high-priced time losses with "service-nervous" engine clutch complications!
The TD-24 gives you the operating ease, power-transfer efficiency, temperature-immunity, and service economy and simplicity of the International Cerametallic-faced engine clutch. And heat-defiant, long-lasting Cerametallic facings have amazing resistance to wear!

In your king-sized tractor, make sure you get your big money's worth—by getting the cycle-speeding advantages of TD-24 on-the-go shifting!
And compare how the TD-24's exclusive two-speed planetary system gives instant, stall-preventing Hi-Lo shifting without declutching in either the Torque-Converter or Gear-Drive models. You also get the added advantage of "no-stop" shifting with exclusive synchromesh transmission in the Gear-Drive model.

Make sure you don't fizzle away big finances by handicapping your operator—give him a break!
Give him TD-24 flush-deck design, control-tower vision, and reach-easy finger-tip controls to increase operator comfort and performance. Give him "one-engine" simplicity for seconds-fast starting and dependable diesel operation. Give him ALL of the dozens of other king-sized production-boosting TD-24 advantages!

Make sure your railroad gets full dollar value in giant-sized performance—for all kinds of off-track earthmoving jobs. See your International Construction Equipment Distributor for a TD-24 demonstration!

a king-sized crawler –sized performance!

With the TD-24 Torque Converter model as pusher, four International 75 Payscraper units prove able to outperform a fleet of six competitive self-propelled scrapers! Contractor, Terra Construction Co., Great Bend, Kansas, is handling a 500,000 cu yd grading job on Kansas 15, near the Nebraska line. "Perfect performance from all our International equipment," states Job Superintendent Weller.

"Where our other tractors failed this TD-24 has the stuff to get the job done," reports Mike Cashen, for Cashen and Erickson, Hibbing, Minnesota. "It is fast, easy to maneuver, and the only tractor we found that could load in these rocks." The job is building a tailings settling pond at a new Taconite plant in the Mesabi Iron Range. Because it's tough, the TD-24 wins the job of push-loading three self-propelled scrapers, and 'dozing boulders aside!

INTERNATIONAL®
CONSTRUCTION EQUIPMENT

International Harvester Co., 180 N. Michigan Avenue, Chicago 1, Illinois

A COMPLETE POWER PACKAGE: Crawler and Wheel Tractors . . . Self-Propelled Scrapers . . . Crawler and Rubber-Tired Loaders . . . Off-Highway Haulers . . . Diesel and Carbureted Engines . . . Motor Trucks . . . Farm Tractors and Equipment.

Car Delay Helps Measure Yard

The Western Maryland is now looking at "car delay" figures as an added tool in appraising efficiency at its Hagerstown, Md., terminal.

The car delay figures are being used along with the usual indices of operating performance, and their purpose is two-fold: to improve system car utilization by potentially speeding car movement, and to provide, simultaneously, localized cost data for quick-on-the ground decisions that save money.

Hagerstown Terminal — Hump Yard Operations

(Showing week's totals and three days for examples)

Item	Price per hour	Weekly totals or averages	Sunday	Monday	Tuesday
1 New cars humped		7451	1121	1047	1185
2 Hours of hump engines, engineers and firemen		280	32	24	48
3 Hours of basic hump train crew		168	24	24	24
4 Hours of hump yard helpers (riding)		2296	288	288	368
5 Hours of switchtenders		504	72	72	72
6 Hours of penalty westbound final terminal delay		42	5	3	7
7 Car-hours of westbound final terminal delay		2906	350	452	612
8 Car-hours of westbound yard		109146	20241	13581	16745
9 Total car hours — westbound		112052	20591	14033	17357
10 Cost of hump engines, engineers and firemen	Item 2 x $15.01	$ 4202.80	$ 480.32	$ 360.24	$ 720.48
11 Cost of basic hump train crews	Item 3 x $7.87	1322.16	188.88	188.88	188.88
12 Cost of hump yard helpers (riding)	Item 4 x $2.56	5877.76	737.28	737.28	942.08
13 Cost of switchtenders	Item 5 x $2.39	1204.56	172.08	172.08	172.08
14 Cost of westbound final terminal delay	Item 6 x $22.58	948.36	112.90	67.74	158.06
15 Cost of westbound car hours	Item 9 x $11.50	12885.96	2367.96	1613.79	1996.05
16 *TOTAL HUMP YARD COST—Items 10 through 15*		26441.60	4059.42	3140.01	4177.63
HUMP YARD COST PER CAR HUMPED					
17 Cost of hump engines, engineers and firemen	Item 10 ÷ Item 1	.56	.43	.34	.61
18 Cost of basic hump train crews	Item 11 ÷ Item 1	.17	.17	.18	.16
19 Cost of hump yard helpers (riding)	Item 12 ÷ Item 1	.79	.66	.70	.79
20 Cost of switchtenders	Item 13 ÷ Item 1	.16	.15	.16	.14
21 Cost of terminal delay and westbound car hours	Item 14 + Item 15 ÷ Item 1	1.85	2.21	1.61	1.82
22 *TOTAL HUMP YARD COST PER CAR HUMPED —Item 17 through Item 21*		3.53	3.62	2.99	3.52

Tests of the usefulness of car delay figures are now going on, as the accompanying yard operating statements illustrate. Lines 15 and 42 of the statements show how operating statistics for Hagerstown yard have been modified to include this car delay cost.

So far the idea is just an experiment to determine its worth. The new factor can be helpful, it is believed, in eventually setting improved performance standards. The idea of using it grew, as something of a by-product, out of a systems and procedures study which the road initiated several months ago.

If the plan proves helpful at Hagerstown, it may later be tried at the road's Cumberland yard.

To obtain the goals of improved utilization and reduced terminal delay, the new approach places on yard supervision the responsibility for delay along with already existing responsibility for normal costs—costs of enginemen, trainmen, switch tenders, clerks, etc. Thus, the terminal trainmaster, his general yardmasters and yardmasters now have a new dimension to consider in reaching day-to-day decisions regarding number of riders, hump engines used and other cost factors. The objective is to operate the yard at optimum efficiency, which means supervision must sometimes increase things like crew cost in order to decrease other expenses more.

Pinpointing Costs

WM's operating vice-president, George Leilich, felt that conventional operating statistics needed revision so responsibility for lack of car utilization would be reflected in the performance rating of the individual supervisor. As he pointed out in a recent speech at a Railway Systems & Procedures Association meeting, if a yardmaster is charged with the *delay* in

Efficiency

moving cars as well as the *cost* of the crews he employs, he is apt to give more consideration to how long cars are in his area. Sometimes it may pay to add a second hump engine, or a trimmer engine, if the net result is faster car movement and consequently a reduced car delay charge.

It is true, of course, that a given yard's performance will be penalized if cars are held for one reason or another. But a situation like that can be "flagged" for the attention of the superintendent or other operating officers, and will not offset other benefits gained.

Note Lines 8 and 15 in the statement for westbound cars through Hagerstown. Total car-hours daily (Line 8) are obtained by adding, at the end of each hour, the actual number of cars in the yard at that time. This continues for the 24-hour period. An hourly net figure is obtained, adding arrivals and subtracting departures. Daily totals are tallied, then a weekly figure.

Figuring Car Delay

To obtain a cost figure for these cars, total car-hours are multiplied by an hourly per diem factor of 11.5 cents. In the week shown above, for example, total car-hours charged to the yard's westbound operation amounted to 112,052. Translated into cost, the yard is charged (Line 15) a total of $12,885.96 for car delay.

Another point worth mention is that trains held out of the yard are charged against the yard's operation, also. Occasionally, when peak traffic periods have congested the westbound yard, holding out of some trains has been necessary. This condition is directly related to how the yard is operated, and the inclusion of this cost can properly be considered part of the terminal operation.

With this aspect to consider, the supervision on a given trick may find it to his advantage, cost-wise, to speed hump operations by adding riders (Hagerstown is a rider hump) or by calling an additional hump unit into service.

The net effect of this new approach to cost responsibility is working well so far, Mr. Leilich feels. As the test

(Continued on page 51)

Hagerstown Terminal—Other Operations

Item	Price per hour	Weekly totals or averages	Sunday	Monday	Tuesday
23 Cars dispatched—eastbound		9328	1374	1153	1188
24 Cars dispatched—terminal destination and interchange		1092	134	113	148
25 Cars Dispatched—westbound		8000	1091	1174	1034
26 *TOTAL CARS DISPATCHED*		18420	2599	2440	2370
27 Hours of yard engines and basic crews (engineer, fireman, foreman, 2 helpers)		848	104	104	128
28 Hours of extra yard engine helpers		224	32	32	32
29 Hours of switchtenders		336	48	48	48
30 Hours of yardmasters and clerks—basic		168	24	24	24
31 Hours of added clerks		368	48	48	56
32 Hours of penalty eastbound final terminal delay		18	—	2	1
33 Car-hours of eastbound final terminal delay		1808	—	83	130
34 Car-hours of eastbound terminal		87000	11861	11650	9535
35 *TOTAL EASTBOUND CAR HOURS*		88808	11861	11733	9665
36 Cost of yard engines and basic crews	Item 27 x $17.65	$14967.20	$1835.60	$1835.60	$2259.20
37 Cost of added yard engine helpers	Item 28 x $2.70	604.80	86.40	86.40	86.40
38 Cost of switchtenders	Item 29 x $2.43	816.48	116.64	116.64	116.64
39 Cost of yardmasters and clerks—basic	Item 30 x $26.96	4529.28	647.04	647.04	647.04
40 Cost of added clerks	Item 31 x $2.32	853.76	111.36	111.36	129.92
41 Cost of eastbound final terminal delay	Item 32 x $31.60	568.80	—	63.20	31.60
42 Cost of eastbound car hours	Item 35 x $11.50	10212.90	1364.01	1349.29	1111.47
43 *TOTAL COST—Items 36 through 42*		32553.22	4161.05	4209.53	4382.27
44 Average car detention	Item 9 ÷ Item 25	14.01	18.87	11.95	16.78
45 Average car detention—eastbound	Item 35 ÷ Items 23 + 24	8.52	7.86	9.26	7.23
TERMINAL YARD COST PER CAR DISPATCHED					
46 Cost of yard engines, crews, added helpers and switchtenders	Items 36 + 37 + 38 ÷ Item 26	.89	.78	.83	1.04
47 Cost of yardmasters and clerks	Items 39 +40 ÷ Item 26	.29	.29	.31	.33
48 Cost of eastbound final terminal delay	Item 41 ÷ Item 26	.03	—	.02	.01
49 Cost of eastbound car hours	Item 42 ÷ Item 23	1.09	.99	1.17	.93
50 Cost of westbound car hours	Item 15 ÷ Item 25	1.61	2.17	1.37	1.93
51 *TOTAL CAR HOURS COST*	Item 15 + Item 42 ÷ Item 26	1.25	1.43	1.21	1.31
52 Terminal yard cost per car dispatched	Items 46 + 47 + 48 + 51	2.46	2.50	2.37	2.69
53 Total operating cost	Items 10 through 13 + 36 through 40	34378.80	4375.60	4255.52	5262.72
54 Total cost of per diem and terminal delay	Items 14 + 15 + 41 + 42	24616.02	3844.87	3094.02	3297.18
55 *TOTAL COST OF YARD*	Item 53 + Item 54	58994.82	8220.47	7349.54	8559.90
56 *TOTAL COST OF YARD PER CAR DISPATCHED*	Item 55 ÷ Item 26	3.20	3.16	3.01	3.61

DSL YARD CLEANER picks up refuse from the track and loads it via conveyor into dump boxes.

TRAIN on adjacent track is made up of 12 Converto 2½-cu yd dump boxes mounted on six push cars.

THE EJ&E DOES IT AGAIN . . .

Yard-Cleaning Costs Cut Sharply

In 1950, the EJ&E developed equipment for picking up and loading refuse from its yard tracks, replacing a hand operation. Using the machinery the cost was reduced from $11.28 to $4.37 per cu yd. Rising wage rates subsequently increased the cost to $5.08 per cu yd.

The railroad is now experimenting with additional measures aimed at cutting the cost still further. By providing additional equipment for hauling the refuse it is able to keep the track-cleaning machines in operation a greater percentage of the time. Also, an improvement in the hauling equipment has speeded up the dumping operation at the disposal point.

With these improvements the road expects a further cut of more than 50 per cent in its yard-cleaning costs.

Keeping its yard tracks clean is a maintenance expense which the Elgin, Joliet & Eastern is constantly striving to reduce. Back in 1950, three of the road's maintenance officers collaborated in the development of a two-unit team of yard-cleaning machines—a sweeper and a loader. By the use of these machines and Converto dump-box push cars, the EJ&E cut the cost of yard-cleaning at that time more than 50%. The two machines were later combined into a single unit, which is now marketed by the Nordberg Manufacturing Company as the DSL yard cleaner.

The EJ&E has retired its original two-unit outfit and now owns four of the DSL yard cleaners. One is in operation at Joliet, Ill., another in South Chicago and two in the yards in Gary, Ind. Refuse picked up by each machine is deposited into Converto hydraulic-dump boxes mounted two to a car in a train of six push cars. The push-car trains are each towed by a Fairmont Class 8 motor car. These outfits work on a seasonal basis, starting in February, or shortly thereafter, and continuing until freeze-up in November or December.

The biggest and most difficult cleaning problem existed in the yards at the Gary steel mills. Here a great deal of dirt and refuse, such as broken pieces or refractory brick, iron-ore dust from flues, coke, slag, coal and mill scale from manufactured steel, is deposited on the tracks, as is soil blown in from adjoining property. There are 300 miles of track to be cleaned in the mill area alone.

The two outfits at Gary each employ a foreman, and at times an assistant foreman, a machine operator, five laborers and two switchmen. The machine operator runs the DSL yard cleaner. He is assisted by a laborer in making on-the-spot adjustments in the height and direction of the conveyor boom and in the in-gathering

SIDES of dump boxes are lowered when train is on inclined track for unloading. Hoppers are on depressed track.

OPPOSITE SIDES of dump boxes are raised hydraulically causing refuse to spill out into the 50-ton hopper cars.

wings of the machine. Another laborer levels the material in the dump boxes while the machine is in operation. This man also signals the motor-car operator (a laborer) when to move the train. Two other laborers work ahead of the cleaning machine picking up objects from the track and intertrack areas that are too large for the machine to pick up. These are thrown into the dump boxes.

Until recently, when the train of push cars had been loaded, all of the men, except the machine operator, jumped aboard the motor car, and the train was towed to a dumping spot at Broadway street in Gary. A depressed track and an adjacent inclined track had been constructed at this point. The depressed track normally contains three conventional side-dump hopper cars of 50-yd capacity. A sheet-iron apron prevents spillage between tracks.

The train of push cars was pushed up the inclined track and stopped when spotted over the hopper cars. The men then lowered the sides of the dump boxes on the hopper-car side and operated the individual hydraulic hand pumps on the opposite side, causing the boxes to spill their loads into the hopper cars. After dumping, the boxes were pumped down to their normal position, the sides raised and fastened in place, and the train returned to the yard-cleaning machine to repeat the cycle.

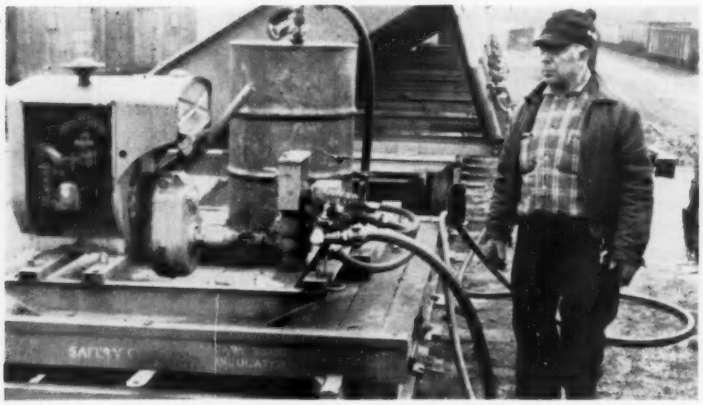
When the hopper cars are filled, a switch crew pulls them from the depressed track, sets in three empties, and hauls the loads to a disposal area along the shore of Lake Michigan where the material is unloaded and spread in a low-ground area.

This plan of picking up and disposing of yard refuse worked well. Despite wage increases of 43 per cent since 1950 and the added cost of two switchmen, the cost of yard cleaning in Gary mill yard, which was $11.28 per cu yard in 1950, was held to $5.08 in 1956, a reduction of 55 per cent. The yardage picked up has more than doubled and a better job of cleaning has been accomplished.

Wanted: Better Performance

But Roadmaster R. V. Dangremond was not satisfied. The yard-cleaning machine was idle while the push cars were away being dumped. The yard cleaner—the pace-setter for the work—was not being fully utilized. He reasoned that, if another train of empty push cars were available, the yard cleaner could continue to work while the first train was being dumped.

He also noticed that considerable time was required for the men to op-



HYDRAULIC power unit consists of a Wisconsin 14-hp engine direct connected to a Converto pump.

AFTER connecting the power unit to the train's hydraulic line, all boxes can be dumped simultaneously.

erate the pumps for raising and lowering the boxes when dumping. He reasoned that this operation could be speeded up by connecting the hydraulic pumps on all the boxes in tandem and installing a gasoline-engine-driven hydraulic pump enabling boxes to be dumped simultaneously.

After consultation with Brice Hayes of the Brice Hayes Company, which represents the manufacturer of the Converto units in the railroad field, and H. F. Skinner, the road's supervisor of scales and work equipment, it was decided that the plan was feasible and could result in the yard-cleaning costs being substantially reduced.

Six more Fairman Class 113 push cars and 12 Converto dump boxes were purchased and the boxes were mounted two to a push car as before. Hydraulic hose was used to couple the hydraulic pumps of the boxes together in series. A new Wisconsin 14-hp gasoline engine was direct-connected to a new Converto hydraulic pump, which is capable of producing from 750 to 1,000 psi pressure in the hydraulic fluid. The engine and pump were mounted on an old push car, together with a 55-gal oil drum which serves as a fluid reservoir. A timber platform was built at the end of the inclined track, on which is spotted the push car carrying the power unit.

Practice Makes Perfect

The new equipment has only recently been put into service and the men are getting accustomed to their duties. As before, the yard cleaner works on one track and the train of Converto push cars on an adjacent track. When the dump boxes are heaped full, the motor car pulls the loaded train a short distance away and sets in the train of empty dump boxes. The motor car then hauls the loaded train to the dumping spot.

While the loaded train is being dumped, the yard cleaner loads the empty boxes. If this train must be moved before the motor car returns, the yard cleaner pushes it by means of a long pole.

It requires about an hour for the yard cleaner to load a train of dump boxes. The dumping time cycle will, of course, vary according to the length of haul, the number of switches to be thrown, and the interruptions caused by switch engines. However, it is estimated that the cycle will range from 20 to 35 min. This will enable the motor car to return to the cleaner before it completes filling a train.

When operating only one train of dump boxes, the Gary outfits averaged the filling and disposing of about 40 hopper cars a month. With the new arrangement, the road expects to raise this output to about 115 hopper cars a month.

Railroading After Hours with Jim Lyne

WHO ARE THE BEST RAILROADERS?—I had a pleasant visit not too long ago with Wabash Superintendent E. W. Nixon of Moberly, Mo. He ventured the opinion that the kind of Missourians that take to railroading, on the average, make pretty able railroaders (he didn't say, necessarily, the best). He thought the reason might lie in the fact that in semi-rural areas there are not so many industries competing for high-grade help—hence more qualified people find their way to the railroads.

Maybe my experience is too limited to be valid, but I have a sort of notion that farm boys tend to make good railroaders—possibly because they often idealize the job and hence become emotionally devoted to it. There aren't many good railroaders that I've ever known who'd "just as soon do something else."

MANY-COUNTRIED RAILROADER—I have a letter from W. S. Carr, retired general superintendent of the New Haven, who is now railway advisor to the government of Brazil—and who also had a distinguished career in the Military Railway Service.

Colonel Carr says he recently had a letter from President Fred W. Okie of the B&LE (likewise a notable MRS alumnus) in which FWO suggested that nobody has railroaded in as many countries as Bill Carr has. Here's the list: USA, Canada, England, Wales, France, Belgium, Luxembourg, Netherlands, Germany, South and North Korea—and now Brazil.

Anybody to dispute that record?

I've often wondered whether there are any considerable number of American railroaders who started their railroading in Europe. I met a Southern Railway engineman a number of years ago, who began his career as a fireman in Scotland—and entered the same line of work when he immigrated to this country. In the biographical sketches of railway officers I've read, I seem to recall a few who began railway work in Britain.

But I've never run into an American railroader from a non-English-speaking country who served his railway apprenticeship on the other side. It ought to be interesting to hear what differences these fellows (if there are any such) notice between railway practices in North America and abroad.

The Southern Railway engineman told me the difference that struck him most was the practice employees in Britain have of saluting the boss and addressing him as "gov-nor."

EAGER BEAVER PORTERS—One minor annoyance that I occasionally run into is the excess zeal of some sleeping car porters to get their work behind them. For example, I got on a train at 8 p.m. the other evening and found my bed all made up—still broad daylight. Approaching terminals, the ice-water carafe often has a way of disappearing as much as an hour before arrival—but maybe this is a precaution necessitated by experience in having passengers pack the bottles in their bags.

I'm not kicking about such petty annoyances, but there must be others who do object. Sleeping car service is getting to be relatively expensive and the customers' demands tend to rise in ratio to their idea of the generosity of their expenditure. The fellow eating at a $5 restaurant is apt to be a little more fussy than the one who is paying $1 or less.

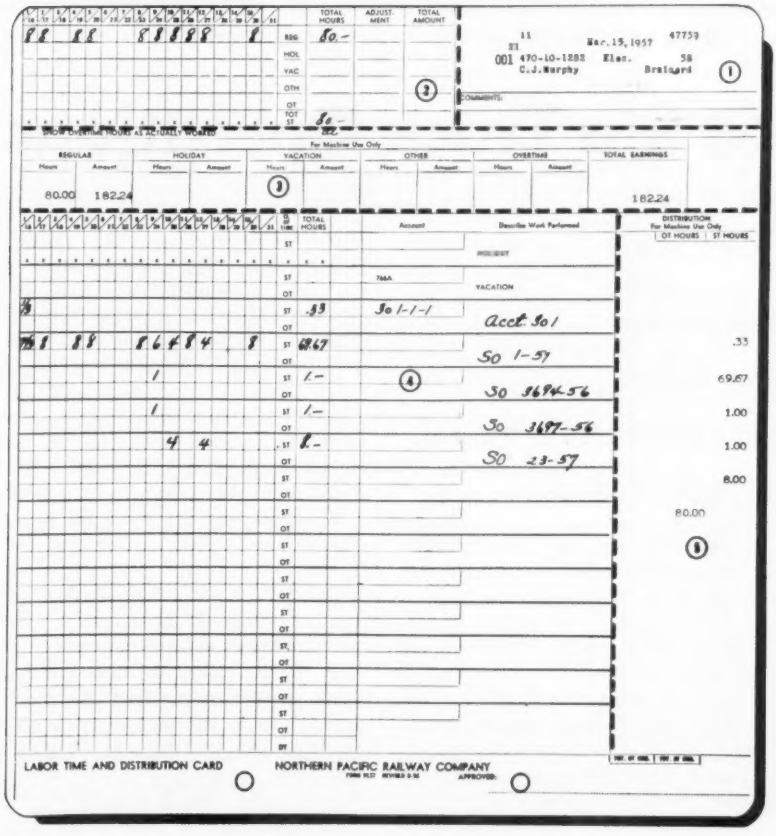
How NP Saves on Payroll Reporting

Gathering and reporting payroll and labor distribution data for 6,000 mechanical and stores employees twice a month was a time-consuming, costly and loaded-with-danger-of-error headache for the Northern Pacific's accounting forces. Here's how they not only have simplified and speeded up the work but have secured maximum savings and accuracy.

When the Northern Pacific found that its manual methods for computing and recording mechanical and stores payrolls just weren't fast enough for the volume of work that has built up with the road's business growth, it was clear that mechanization had to be the answer.

Deciding that a tie-in with payroll tabulating equipment would be too costly, company officers figured installation of eight Burroughs Sensimatic accounting machines would provide the speed and flexibility they'd found wanting. The machines were set up in the district offices at St. Paul, Livingston, Mont., and Tacoma last fall. The road then set out to eliminate repetitious handling of time, pay and distribution cards.

One development was a single labor time and distribution card on which individual employee and foreman fill in hours worked, labor distribution of hours worked and needed ICC statistics.



TIME AND LABOR DISTRIBUTION CARD is the key form in recording employee hours worked, amount of pay and distribution of labor. Section 1 carries pre-addressographed information on the employee, rate group and ICC classification. Section 2 carries the time card hours. Total hours and pay are machine printed in Section 3. All distribution information appears in Section 4 while the distribution of hours is machine printed in Section 5.

According to Assistant Comptroller Carl Pace, the method saves money through the speed of operation: three machine operators can process 14,000 distribution postings in 24 working hours. Distribution clerks are free for other work—meaning economies for the company—and other savings have been realized in the elimination of time clocks, time clock stock and other forms formerly needed.

Mr. Pace also reports that "when we are faced with a shortage of time because of holidays or staff shortage, the flexibility of our new methods enables us to compute gross pay for payroll and hold the distribution work for a later date when we are not as pressed for time."

Cross-check opportunities available in the system and machine-proving features in the equipment reduce errors, Mr. Pace reports, while additional accuracy is obtained by more precise methods of charging wages to particular jobs or ICC classifications.

The labor time and distribution cards are sent with job slips to work points. These are filled out daily and, at the end of a pay period, are returned to district offices. There, hours worked are calculated and the cards are sorted first by rate groups and then by ICC classifications prior to posting.

In the posting operation, the machine accumulates regular, overtime and holiday or vacation pay and prints total hours automatically.

Distribution hours are then listed and totaled.

A gross earnings total is punched into cards from the labor time and distribution cards and the mid-month distribution totals are merged with the month-end payroll to give a complete picture of the month's labor expenses.

PLENTY OF SPACE, light and complete facilities make this rip track setup fast and efficient.

They Changed Rip Track Operations

Result:

- Expedited yard inspection
- Reduced switching delays
- Reduced time cars spend on rip tracks
- Made 24-hr operations feasible

Several rather significant changes have been made in the organization and operation of rip (light repair) tracks on the Frisco at Springfield, Mo., making the overall setup differ substantially from what might be termed standard on other roads.

Yard inspectors and the car men on the rip track have been combined into one group, with all members classified as car inspectors and paid at the highest rate. With this arrangement, any man can be put on any job that comes up. The method offers several advantages.

1. When a train arrives in the yard, a larger force (equivalent in number to the inspectors plus the rip track men) is available for inspecting it and getting it on its way quickly.

2. The peaks and valleys of the work demands on the inspectors are smoothed out and the work load is distributed throughout the shift.

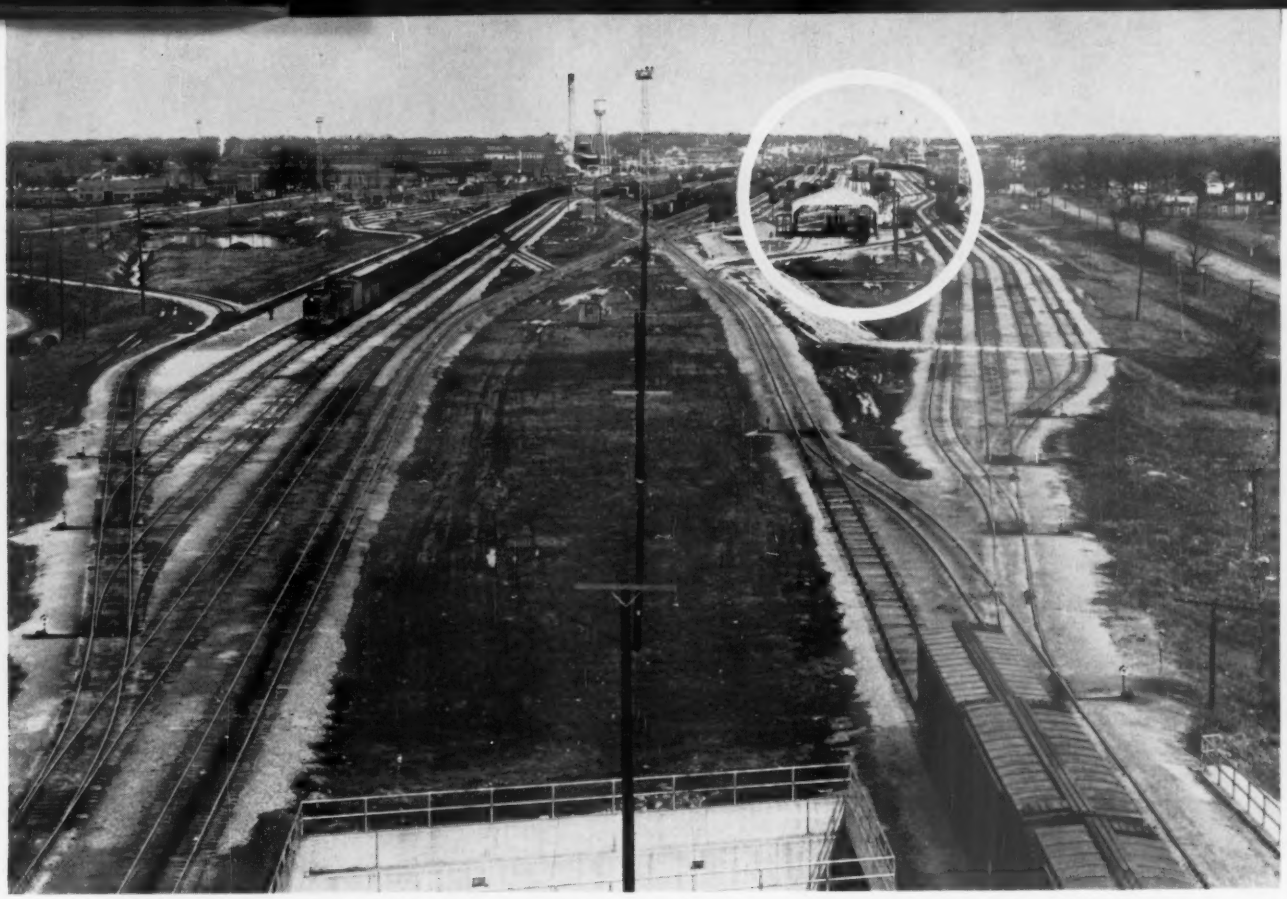
3. It gets bad order cars off the rip track and back onto trains sooner because a larger force is available between trains for repair work.

4. It becomes practicable to operate more rip tracks on a 24-hr basis, again improving service to the shipper by getting the cars repaired quicker as well as reducing the road's per diem payments.

5. Studies proved it more desirable to have two small rip tracks, located at each end of the train yard, rather than one large one located in the center. This reduces the time required to set and pull bad orders; and since the train yard forces are used at both ends of the yard, it enables the car inspectors to go quickly to the repair track or to the train yard as needed.

Frisco people call these rip tracks "speed rips." Each set-up has two tracks, with a total capacity of 16 cars, or 4 cars to each track. Cars are spotted on one track, and while these cars are being repaired the other track can be set. After cars on the first track have been repaired, the workmen move to the second track, thus enabling the first track to be pulled and reset. By rotating in this manner, the switching time is kept to a minimum, and there is little or no interference between the switching and the repairing.

In addition to repairs in the speed rips, such minor repairs as replacement of bolts or cotter keys are made



COVERED "speed rips" (circle) coming off the drill tracks are located to advantage in Springfield yard.

in the train yard. This type of repair does not require any special equipment or facilities that would necessitate placing the car in the speed rip. The workmen on these repair jobs are adequately protected.

A steel-framework, open-side building covers working areas over each set of two tracks, which are spaced approximately 40 ft apart. Concrete paving between all tracks and the sides of buildings facilitates handling materials and also serves as a jacking platform in case of truck removal. Two electric power car pullers are located on the platforms to spot cars at convenient locations.

Adjacent to, and at right angles to, the tracks are 8 double wheel tracks with an 83-ft monorail equipped with a chain hoist to spot wheels on entrance track to building. A pneumatic turntable is available to line wheels up on the rip track.

At a convenient location between the tracks, there is a large compartmented double-side track for storage of such small miscellaneous repair items as bolts, nuts, washers, and cotter keys. Floor storage space is available for couplers, knuckles, springs, brake shoes and other heavier repair materials.

Next to the wheel tracks is a 30-ft by 30-ft steel storage building containing work benches, welding equipment, pipe and bolt threading machine, various items of brake equipment and other necessary supplies. The whole arrangement is designed for fast, efficient repair, with all necessary tools and facilities available to make the speed rip self-supporting.

Here's How Speed Rip Works

Train No. 32, with 74 cars, from Floydada, Texas, to St. Louis, arrived in the yard at 9:35 a.m. Inspection showed two cars needing light repairs. One car had several springs broken in a cluster, the other had a broken carrier iron.

While classification of the train was going on, the two cars were sent to the speed rip, repaired, returned, and the train left on time at 11:10 a.m.

Had there been no speed rip available, the cars would have gone to the standard light repair tracks, to be held at least 24 hours and possibly 48.

CARS can be spotted quickly with electric car pullers.

LIFT TRUCK takes about half an hour to unload packaged lumber.

How to Unload Lumber Fast

. . . 1,000 BFM FROM A CLOSED CAR

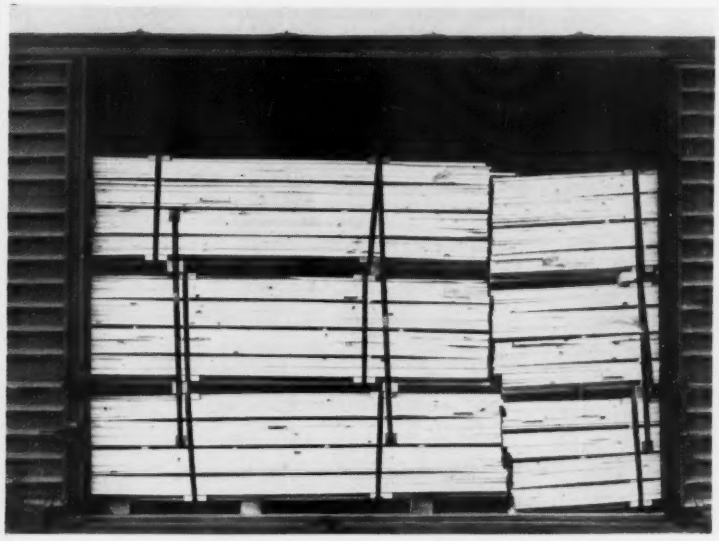
Shipment of lumber in packaged load units is resulting in 33⅓ per cent heavier payload per closed car, with turnaround time reduced by 50 per cent, says Robert M. Martin, Midwest traffic manager of the Central of Georgia. The receivers' unloading costs reportedly are cut up to 90 per cent.

The steel strap interlace securement method of loading unitized lumber bundles in box cars and on flat cars was developed through the "cooperative pioneering" of the National Retail Lumber Dealers Association; John Moeling, president of Chicago's Sterling Lumber Company; the Association of American Railroads; and the steel strapping industry.

Originally, the interlace securement loading method was developed for bulkhead flat car shipments. Recently, it has been gaining in popularity for closed car loadings as well.

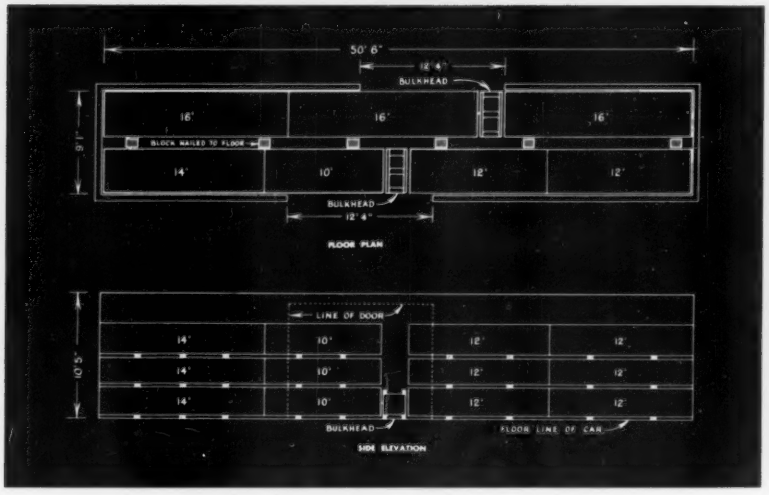
Two lengths of ¾-in. steel strap encircle each package. Stickers slightly less than the width of the package, and of a uniform thickness, with a minimum size of ¾ in. by 2 in., are inserted, three sets per package-unit. When the straps are tightened this virtually eliminates any possibility of "coring" during transit.

Three packages are bound into a larger unit with two lengths of steel strap threaded through the center of



PACKAGED LUMBER arrives in perfect condition. Three bundles in each tier are held together by straps.

THREE AT A TIME unloading can be accomplished if lift truck has sufficient carrying capacity.



◄**UNIT LOAD** in a double-door box car is laid out this way by the Boise-Bayette Lumber Company.

the top and bottom packages. Separators are located between each package in the stack.

One of many possible ways of positioning such unitized lumber packages in a 50-ft, 6-in. double-door box car is illustrated. The packages in this case are 4 ft wide. Other loading patterns are used by different lumber mills, but the priniciples remain the same.

Unloading a Box Car

The method of unloading a closed car of packaged lumber is much simpler than it might seem. Using the system outlined in a pamphlet issued by the Acme Steel Company, (Chicago), unitized packages of lumber can be unloaded quickly with a minimum of labor.

First, the bundles in the car doorway are taken out. If the stacks are longer than the door opening they must be "twisted" out. Power steering and side-shift on the fork truck are a definite advantage in this "twisting" operation.

The size of fork-lift truck available determines what size unit can be unloaded in each move. For example, if the truck's capacity is 4,000 lb. or less, the interlacing straps must be cut to permit removing bundles singly.

Individual bundles can be further broken up and unloaded in parts if the whole package is too heavy for the truck. By using entry plates, removal of part of a package may be easily accomplished.

Weight of the individual packages will vary with their length. Lift trucks with capacity of 6,000 lb or more can handle a package of unitized lumber 20 ft long.

With larger trucks it will be unnecessary to break down the individual bundles. Trucks having a capacity of 15,000 lb or more can easily remove an entire tier of three packages at one time. In this case, the interlacing bands holding the packages together need not be removed.

Less Damage Claims Expected

After the doorway has been cleared, the packages in the ends of the car must be rolled to the doorway before they can be unloaded.

The unit load has advantages for both shippers and carriers. In some cases, lumber mills have been able to reduce their loading time by as much as 50 per cent, while the short loading and unloading time helps the carrier by speeding car turnaround. It also is expected that there will be fewer damage claims because the load is in tight individual bundles.

People in the News

ALASKA.—R. H. Bruce, superintendent of operations, Anchorage, assumes direct responsibility of the transportation branch on June 1, together with the engineering, mechanical and communications branches. **C. J. Evey,** superintendent, transportation branch, becomes assistant to general manager, with responsibility for development of special projects. **Harry F. Jones,** assistant to superintendent of operations, named operations analyst, assigned to headquarters staff. **William C. Davidson,** trainmaster, promoted to new position of assistant superintendent of operations and will assist Mr. Bruce in supervision of freight and passenger agents at line points, as well as exercising direct supervision over transportation services.

ALLEGHANY CORP.-NEW YORK CENTRAL.—Thomas J. Deegan, Jr., NYC vice-president—staff, established himself June 1 as an independent consultant on public policy to both Alleghany and the railroad, as well as other clients. Mr. Deegan resigned as vice-president of the Central, but will remain as vice-president and a member of the board of directors and the executive committee of Alleghany. The move, an announcement said, was made to expand the role of the NYC in its public relationships among other segments of the railroad industry, other industries, public officials, and NYC patrons. Mr. Deegan will make his headquarters in the NYC's executive building, 230 Park Avenue, New York City.

ASSOCIATION OF AMERICAN RAILROADS.—Gregory S. Prince, general solicitor, Washington, D.C., elected vice-president and general counsel in charge of the law department, succeeding the late **Thomas L. Preston. William M. Moloney,** general attorney, promoted to general solicitor.

BANGOR & AROOSTOOK.—Paul H. Day, assistant manager of purchases and stores, appointed manager of purchases and stores, Derby, Me., replacing **Richard B. Baldwin,** who resumes his duties as coordinator of new methods on a full time basis at Bangor. **Harold F. Bell,** staff assistant, purchases and stores department, appointed assistant manager of purchases and stores, Derby.

CANADIAN PACIFIC.—A. E. Smith appointed operating supervisor, I.D.P., Prairie and Pacific Regions, Winnipeg.

E. O'N. Furlong, purchasing agent, Calgary, Alta., transferred to Toronto, Ont., succeeding **R. H. Yarnell,** who retires June 1. **P. G. Clendenning** appointed purchasing agent, Victoria, B.C., succeeding **M. Mainwaring,** transferred to Calgary. **R. C. Murdoch** and **A. H. Ivey** named assistant purchasing agents at Toronto and Montreal, respectively.

CHICAGO & NORTH WESTERN.—Stanley B. Boardman, assistant general freight agent, Chicago, appointed general freight agent in charge of the freight sales office there, succeeding **T. A. O'Donnell,** assistant freight traffic manager, whose retirement was noted in Railway Age, Apr. 29, p. 37. **Walter J. Hoffman,** general agent-freight department, Chicago, named to succeed Mr. Boardman.

CHICAGO SOUTH SHORE & SOUTH BEND.—Edward H. Bross, secretary and auditor, Michigan City, Ind., elected comptroller, secretary and director. As comptroller Mr. Bross succeeds the late **Edward H. Utley,** vice-president and comptroller (Railway Age, Apr. 22, p. 44). **Lloyd E. Bantz,** assistant treasurer and assistant secretary, elected auditor, replacing Mr. Bross. Mr. Bantz retains the title of auditor of passenger revenue. **Harry O. Connell,** auditor of freight revenue, elected also assistant secretary and assistant treasurer.

COTTON BELT.—Effective June 1, **Leon C. Albert,** manager personnel, Tyler, Tex., appointed assistant general manager. His successor is **Martin L. Erwin,** first assistant manager personnel, Tyler.

B. B. Garrett, assistant general freight claim agent, Tyler, Tex., appointed general freight claim agent, to succeed **J. T. Gallaspy,** retired.

DELAWARE & HUDSON.—Raymond L. Carr, attorney, appointed assistant counsel, Albany, N.Y.

DETROIT, TOLEDO & IRONTON.—R. A. Beightol appointed auditor of revenues.

ELGIN, JOLIET & EASTERN.—J. V. Bodine appointed administrator of methods improvement program, Chicago.

FRISCO.—A. E. Kerr, supervisor of freight loss and damage prevention, Springfield, Mo., appointed chief special agent, St. Louis, to succeed **E. H. Wilson,** who retired May 10.

The freight loss and damage prevention and freight claims departments have been consolidated under jurisdiction of **E. P. Olson,** assistant to vice-president, Springfield. Freight claim matters continue to be handled by **H. K. Hayes,** superintendent freight claims.

JERSEY CENTRAL.—Clifford W. Buchman, office assistant to vice-president and general manager, appointed assistant superintendent of transportation, Jersey City, N.J.

LEHIGH & NEW ENGLAND.—As reported in Railway Age, May 13, p. 15, **S. T. W. Green** has been elected president of this road at Bethlehem, Pa. Mr. Green entered railroad service in 1911 in the engineering department of the Baltimore & Ohio, later receiving his civil engineering degree from Cornell University. He joined the L&NE in January 1931 as valuation engineer and real estate agent, becoming vice-president and general manager in December 1947.

LOUISVILLE & NASHVILLE.—Joseph C. Kuebert appointed assistant freight traffic manager, Louisville, Ky., to replace the late **E. R. Roby. Karl E. Bader** named assistant to freight traffic manager, Louisville.

MISSOURI PACIFIC.—Julian L. Wells, commercial agent, Fort Smith, Ark., appointed general agent there, succeeding **Harry W. Haines,** retired. **Clarence L. Weaver,** commercial agent, Wichita, Kan., named general agent, Hutchinson, Kan., replacing the late **D. I. Burwell. Robert D. Pierce, Jr.,** commercial agent, Kansas City, Mo., appointed general agent, Topeka, Kan., to succeed **Elmer D. Stratton,** advanced to newly created position of general agent, Kansas City.

R. E. DeGeare appointed manager of service bureau, St. Louis, succeeding **Winston Tompkins,** promoted (Railway Age, May 6, p. 17).

P. D. Tracy, assistant division engineer, Kansas City, appointed division engineer, Coffeyville, Kan., succeeding **G.S. Smith,** who retired June 1.

RAILROAD RETIREMENT BOARD.—Jeremiah E. Walsh, manager, district office, Boston, Mass., named Washington liaison officer of the board, a new position.

SANTA FE.—John G. Fry, assistant chief engineer, Coast Lines, Los Angeles, promoted to chief engineer, Coast Lines there, succeeding **L. H. Powell,** retired (Railway Age, May 20, p. 15).

OBITUARY

Thomas L. Preston, 59, vice-president and general counsel, **Association of American Railroads,** died May 21 in George Washington University Hospittal, Washington, D. C.

Peter Wehle, 72, retired real estate agent of the **Santa Fe,** died May 19 at South Bend, Ind.

Charles E. Thrasher, 66, general freight claim agent, **Baltimore & Ohio,** died May 23, in Quebec, Que., following an emergency operation. Mr. Thrasher was chairman of the Freight Claim Division, AAR, and was visiting the Canadian city to preside at the annual meeting.

Gregory S. Prince
AAR

Paul H. Day
B&R

Edward H. Bross
CSS&SB

Lloyd E. Bantz
CSS&SB

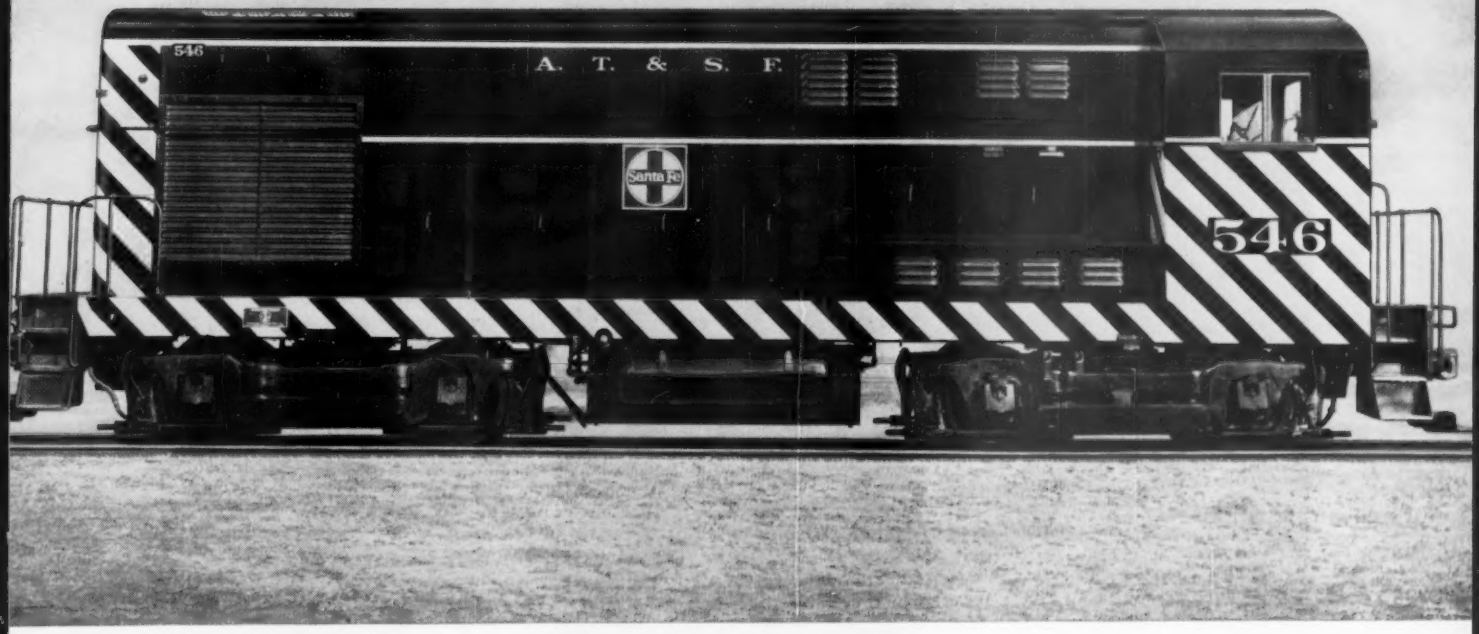
S. T. W. Green
L&NE

John G. Fry
AT&SF

ANOTHER REPEAT ORDER

Santa Fe brings fleet of Fairbanks-Morse switchers to 77,000 horsepower

...LOW-COST WORK HORSE OF EVERY MODERN YARD



Fairbanks, Morse & Co.,
600 S. Michigan Ave., Chicago 5, Ill.

FAIRBANKS-MORSE

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DIESEL LOCOMOTIVES AND ENGINES • MOTOR CARS AND RAILROAD EQUIPMENT • ELECTRIC MOTORS • GENERATORS • PUMPS • SCALES • WATER SERVICE EQUIPMENT • HAND LAMPS

Catch Hot Boxes Automatically

Proven in Daily Operation, Servosafe* Hot Box Detectives Pinpoint Overheated Journal Boxes Instantaneously and Automatically

SERVO CORPORATION OF AMERICA

20-20 Jericho Turnpike
New Hyde Park, L.I., N.Y.

Servosafe Hot Box Detective, manufactured by Servo Corporation, has been *proven* the most reliable, practical, and accurate way to catch hot boxes. It has already been installed on such railroads as:

- **Boston & Maine Railroad**
- **Chesapeake & Ohio**
- **Norfolk & Western**
- **Reading Railroad**

Servosafe Hot Box Detective, installed at trackside, detects potentially dangerous journal boxes without interference in normal operations. Even hot boxes that cannot be spotted by a human observer are detected on trains moving at 10 to over 60 mph. The system indicates the position of the car or cars, and the exact locations of the defective journals.

All the details on the Uni-directional and Bi-directional Servosafe Hot Box Detectives, plus operating and engineering specifications are available for the asking. Simply request, on your company letterhead, TDS-7600A.

*t.m.

Organizations

ASME Meeting in San Francisco, June 9-14

The American Society of Mechanical Engineers will hold its semiannual meeting at the Sheraton-Palace Hotel, San Francisco, June 9-14, in cooperation with the society's San Francisco section and in conjunction with the semiannual meeting of the American Rocket Society.

More than 130 technical papers will be presented, including reports on safe use of nuclear power, atomic energy for civilian use, materials handling, dust and fume control, and lubrication. Three papers originally presented at the first railroad division conference in Chicago, April 25-26, covering use of economy fuel, aluminum in freight cars and evaluation of railway draft gears, will be presented by the railroad division of the San Francisco.

R. L. Bean, Westinghouse Electric Corporation, will present a paper on "A Special Car for High, Wide and Heavy Shipments."

J. W. Corbett, vice-president, system operations, Southern Pacific, will speak at the June 11 railroad luncheon. His topic will be "The Role of the Mechanical Engineer in the Railway Industry." George L. Sullivan, University of California, will present the Roy V. Wright Lecture, also on June 11.

Mechanical Division Will Meet at Chicago, June 25-27

The thirtieth annual meeting of the Mechanical Division, Association of American Railroads, will be held in the ball room of the Hotel Sherman, Chicago, June 25, 26 and 27. It will convene with a joint session of the Mechanical Division and the Electrical Section of the Mechanical and Engineering Divisions.

J. W. Barriger, president, Pittsburgh & Lake Erie, and R. G. May, vice-president, Operations and Maintenance Department, AAR, will address the joint sessions beginning at 10 a.m., CDST, June 25.

High spots of the Mechanical Division program are:

TUESDAY, JUNE 25

Address by C. E. Pond (chairman), general superintendent motive power, Norfolk & Western.

General Committee Report.

Nominating Committee Report.

Discussion of reports on: Locomotives; Lubricants and Fuels for Diesel Locomotives; Axles; Geared Hand Brakes; Specifications for Materials; Safety Appliances.

WEDNESDAY, JUNE 26
9:30 a.m.

Address by R. H. Smith, president, Norfolk & Western.

Discussion of reports on: Arbitration; Prices; Car Construction; Brakes and Brake Equipment; Couplers and Draft Gears; Loading Rules; Forest Products Loading.

THURSDAY, JUNE 27
9:30 a.m.

Address by Kenneth H. Tuggle, member, Interstate Commerce Commission.

Discussion of reports on: Wheels; Tank Cars; Journal Roller Bearings; Lubrication.

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RAILROAD DIVISION

Supply Trade

E. M. Van Winkle, president of the **Magnus Metal Corporation**, a subsidiary of **National Lead Company**, will assume on June 1 additional duties as general manager of National Lead's Magnus Metal Division. In the latter capacity, Mr. Van Winkle replaces **John P. Borda**, who will retire. Also at Magnus, effective June 1, the following promotions have been announced: **John A. Mardick** becomes production manager; **J. V. Sortor**, now assistant to comptroller, becomes comptroller; becomes comptroller; **G. C. Merritt**, now Depew, N.Y., plant manager, becomes assistant production manager, with new headquarters in New York City; and **G. J. Coogan**, Albany, N.Y., plant manager, also becomes assistant production manager, in charge of all plant equipment.

Russell W. Yanicki has been added to the sales staff of the Pittsburgh office of **L. B. Foster Company**.

Rail Joint Company, Division of Poor & Co., Inc., has appointed **Philip J. Kirst** sales representative, at Chicago, effective June 1.

Vanadium Corporation of America has announced the following appointments: **Lloyd W. Lewis**, district representative, made sales manager, eastern district, at New York; **William J. Killian**, district representative, named assistant district manager of the Pittsburgh district; and **John J. Green**, service engineer, appointed manager, wrought steel service, at Pittsburgh.

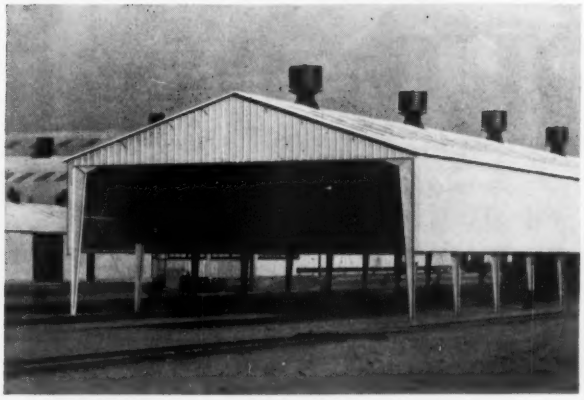
Max K. Ruppert, president of **Poor & Company**, has been elected president and chief executive officer. Mr. Ruppert joined the P. & M. Company, now a division of Poor & Company, in 1922 as a service engineer, after a short career in the engineering department of the Rock Island. Subsequently, he held the positions of salesman, district sales manager, vice-president of sales and in 1943 became president of the P. & M. Company. He was elected vice-president of Poor & Company in 1949, first vice-president in 1951, and president in 1956.

James R. Wilson, vice-president of **Mid-West Forging & Manufacturing Co.**, has been elected president to succeed **Jay L. Hench**, who has become board chairman and will continue as chief executive officer and treasurer. **Ray T. Johnson, Jr.**, has been promoted to the newly created post of executive vice-president. He has been secretary and will continue in that capacity.

Robert P. Messimer, formerly service engineer, has been appointed sales engineer for the **Symington-Gould Corporation**, effective June 1. Mr. Messimer's headquarters will remain in New York City.

Max K. Ruppert

James R. Wilson



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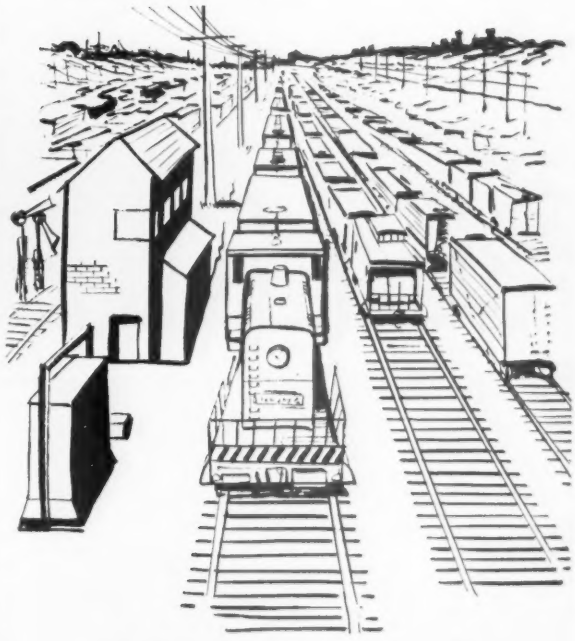

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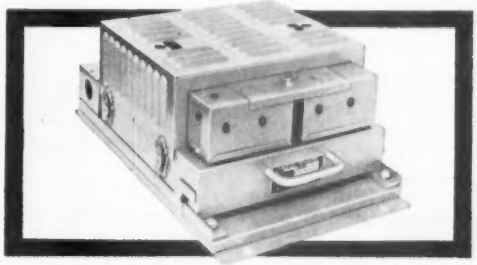

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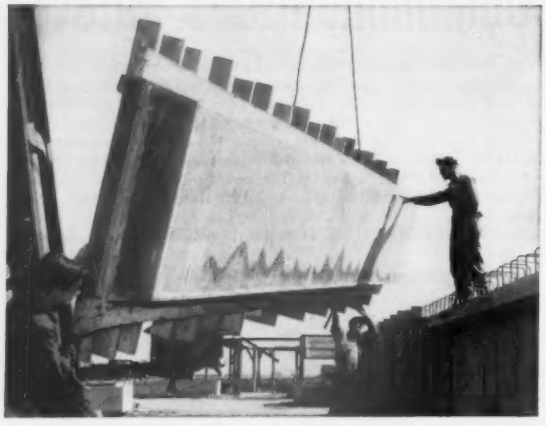
STRONG

Consolidated Freightways, Portland, Oregon, uses fir plywood to line the interior of trucks and trailers. Shown here is a special bulkhead, developed by the firm, to permit mixed shipments of refrigerated and non-refrigerated goods in the same trailer. It consists of two 5/8" Exterior-type panels, hinged, and edged with a rubber boundary to seal off area when bulkhead is in place.



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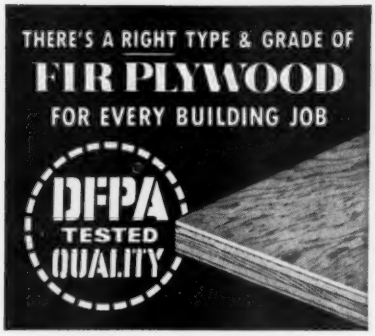

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Current Publications

BOOKS

WORLD RAILWAYS, 1956-57, Fourth Edition. Edited and compiled by Henry Sampson. 502 pages, illustrations, maps, drawings. Published by Sampson Low's "World Railways" Ltd.; distributed in this country by Simmons-Boardman Books, 30 Church st., New York 7. $20.

A new feature of this edition is a tabular listing of all railways with information—where available—about each one presented under 32 headings. In addition to being included in the tabular list, 157 major rail systems are dealt with individually, with new or revised maps, and with figures for equipment, financial and traffic details, and other essential data, brought up to date. Additional information is given covering changes and improvements made during the last year or so, work under way, and that proposed for the future. Welded rail and electrification are dealt with in some detail, and, when the information has been reported, there is a section headed "Livery" which gives the colors used on locomotives and freight and passenger cars. The section on railways occupies 354 pages, with 119 maps, 86 diagrams and 274 photographs and provides a picture of what is happening in rail transport throughout the world, including the U.S.S.R. and Communist China. Another 88-page section describes the activities of most of the world's locomotive and car builders, including a representative survey of new equipment produced in the last 2 years. A 42-page section is devoted entirely to diesel engines available for use in rail transport. At the end of the book are brief surveys of developments of special interest—the use of radio, lightweight equipment, welded rail and rail fastenings, and mechanized track maintenance.

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RAILWAYS AND GEOGRAPHY, by Andrew C. O'Dell. 200 pages, maps. Hutchinson & Co., Ltd., London. Available in this country from Rinehart & Company, 232 Madison ave., New York 16. $1.50.

Mr. O'Dell endeavors to portray, by many varied examples, the geographical factors which have influenced in different places, at different times, railway construction and operation. Examples are drawn from all continents, but special emphasis is laid on Britain and North America—the former because it was the land in which railways evolved, and the latter because it was the first sub-continent to be effectively developed as a result of railway construction. The first five chapters discuss the track, the railway men, the land and the rail, fog and flood, and motive power. The next chapter is a comparison by continents of the railway networks. There follow chapters on services, the urban pattern, and rivals to the rail.

(Continued on page 51)

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(Continued from page 49)

MANAGEMENT FOR GROWTH, edited by Gayton E. Germane. 126 pages, charts. Graduate School of Business, Stanford University, Stanford, Cal. $4.75.

The material in this book is based on the speeches, and the ensuing question periods, which were part of the 1956 Transportation Management Program at the Standford Graduate School of Business. (The program was described in Railway Age, Mar. 19, 1956, p. 8). The need for executive training is discussed by Donald J. Russell, president of the Southern Pacific; developing teamwork, by Sir William P. Hildred, director general, International Air Transport Association; management reorganization, by L. T. Mayher, vice-president, Robert Heller & Associates; cost control and profit forecasting, by P. H. Small, vice-president and director, Pacific Intermountain Express; diversification, by E. C. Arbuckle, executive vice-president, W. R. Grace & Company; emergency transportation controls, by Maj. Gen. P. F. Yount, chief of transportation, Department of the Army; and revising national transportation policy, by George P. Baker, president, Transportation Association of America, and James J. Hill Professor of Transportation at Harvard University.

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PAMPHLETS

YOUR ILLINOIS RAILROADS. 18 pages, illustrations. Illinois Railroad Association, 135 E. Eleventh Place, Chicago 5. Free.

This little booklet was designed as a reminder of the contributions railroads make to the economy and welfare of the state.

Car Delay

(Continued from page 33)

period continues — and procedures may be revised in the process—the operating department is getting a far more precise picture of its terminal costs. Yard performance is expected to improve as on-the-ground supervision learns more of the new dimensions in which it must operate and of the enlarged area within which it makes decisions.

Until the new system was formalized and placed in operation, figures on daily operations at Hagerstown were elusive. Cars handled, for example, were reported twice—when they came in and when they went out. A further defect in the former system of reporting was in the assignment of costs. Cars handled one way were charged on one basis; if they required, say, some special handling, they were assigned costs on a weighted average which usually was higher. This kind of "judgment costing" has been eliminated.

APRIL 12, 1895
LOCOMOTIVE WORKS FORECAST ELECTRIC MOTOR OPERATION
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The generating plant from which the motors at present used in the shop are supplied is temporary. It consists of two 100 H. P. dyna-

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What's the Test for Good Accounting?

Of the many evils attendant on extortionate income taxes, none is worse than the diversion of able men from constructive work. As long as there is money to be made from finding legitimate means to reduce taxes, a large proportion of the country's brain-power will perforce be deflected from creative work into profitable but economically sterile search for tax "gimmicks." A good example is the current controversy over proposed changes in ICC accounting practices.

What the Argument Is About

This paper's view of questions involving the technique of accounting is strictly that of the layman. Laboring under this handicap (if it be a handicap), we are unable to discern any practical advantages to the railroads in major changes proposed by critics of present accounting practices. The principal criticisms of present procedure involve (1) the difference between the Internal Revenue statement of net earnings and that required by the ICC; and (2) the relative merits of "replacement accounting" versus "depreciation accounting" for the track structure. It is contended that ICC revenue accounting overstates current railroad earnings and replacement accounting understates them.

The overstatement is said to arise from the fact that the Internal Revenue people have allowed the railroads a lot of "fast write-offs" of capital expenditures for income tax purposes—while the ICC requires the railroads to show depreciation at the traditional rates—which may very well err on the low side. The result is that actual railroad earnings, as reported to the Bureau of Internal Revenue, are currently considerably lower than the earnings shown by the railroads in their reports drawn up under ICC prescription.

It is unfortunate that the ICC failed to prescribe changes in accounts to parallel actual earnings, at the time "fast write-offs" were initiated. That failure has led to complexities and misunderstandings. But, by now, practically everybody seriously interested in the record of railroad performance knows about the discrepancy between Internal Revenue and ICC revenue accounting. Some of the ablest railroad analysts are repeatedly calling attention to this situation.

With such widespread publicity, it seems unlikely that there is anybody seriously interested in railroad earnings who is unaware of the lack of conformity between Internal Revenue and ICC reports of railroad earnings. The important question would seem to be: *Is there now any practicable way of revising railroad earnings reports for the past six years or so, to conform to Internal Revenue reporting, which would not create more confusion than it could possibly allay?* We doubt it.

This is admittedly merely a layman's opinion. Possibly accounting technologists could shoot it full of holes. But when accounting changes are suggested which will correct a generally understood discrepancy —only at the cost of initiating a new discrepancy much more difficult to explain and understand, then what practical purpose is served?

The other important criticism leveled against the ICC's accounting prescription is that "replacement accounting," rather than "depreciation accounting," is used for track and roadway. Whether one practice is preferable to the other from a standpoint of accounting technology is, as we see it, a minor consideration—in comparison with the question of which method is more conducive to the financial health of the railroads.

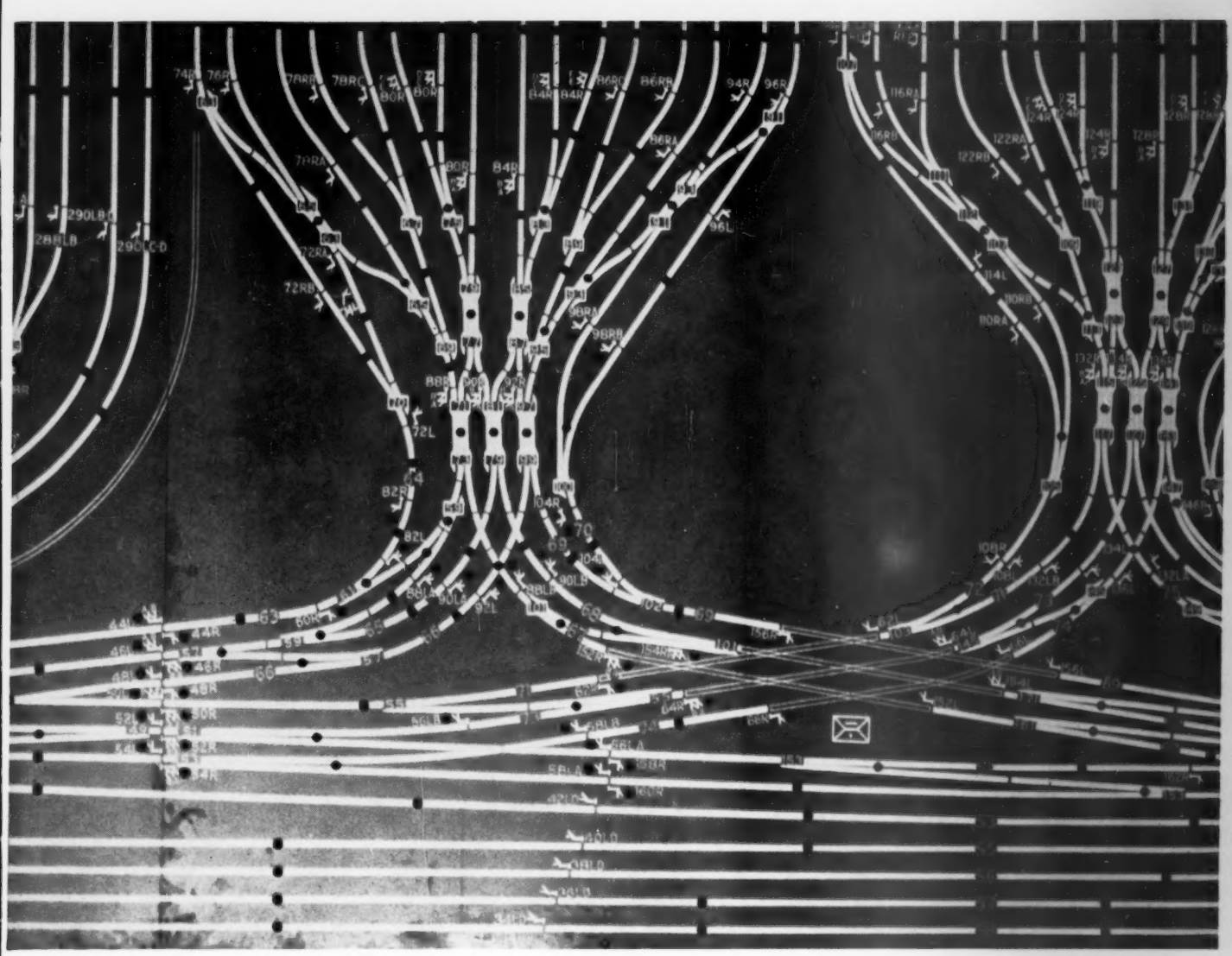
Keeping Railroad Plant Intact

In an article in last week's issue, President J. M. Symes of the Pennsylvania demonstrated beyond question that the railroad industry is suffering from a serious inadequacy of capital—not merely for expansion and improvement, but for renewal of worn-out plant and equipment. The reasons are two in number: (a) inadequate net earnings (by whatever form of accounting they are measured) and (b) excessive taxes. When a fully depreciated freight car that cost $2,000 is retired, and has to be replaced by a car costing $8,000, the railroad has to find $6,000 of new capital. The only practicable source of new capital for most railroads is net earnings (to be invested directly or used to service loans). To get $6,000 of new capital the railroad must set aside $12,500 of net earnings (before taxes).

With present low earnings, a lot can be said for any accounting practice—regardless of whether it suits technicians or not, so long as it is not dishonest—if it helps to preserve the integrity of railroad property.

Under "replacement accounting" when a 100-lb rail which cost $48 a ton is replaced by another 100-lb rail which cost $140 a ton, the railroad charges the entire $140 to operating expenses (i.e., no tax is paid). Under "depreciation accounting" the railroad would have to find almost $100 of *additional* earnings for every ton of rail it wants to replace. Just where do the proponents of "depreciation accounting" suppose the railroads are going to find that kind of money?

There is no approach to accounting which will suit everybody. The ICC system can certainly stand some improvement—particularly to make it a more useful tool to management in cost analysis. But accounting is, or should be, strictly a handmaiden. The cultivation of its niceties should subserve the health of the railroad industry, not vice versa.



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Never take electrical power for granted!

Today's terrific railroad traffic is seen most graphically on the CTC boards—from which a handful of experts call the signals for an entire system.

The only links between these men and the trains they control are electronic and electrical circuits *that must not fail.* This means that only the most reliable, most long-lived, most exhaustively tested cables should go into these control circuits.

And that spells Okonite. Proof? The majority of Class I railroads use Okonite cables—not alone for signal circuits, but also for communications, power, diesel electric locomotive wiring, and other uses.

Because Okonite, and only Okonite, makes cable by all four insulating methods (strip, dip, extrusion and taping) you'll get unprejudiced recommendations—whatever your needs—whenever you talk to Okonite.

Don't wait for dangerous, expensive failures to find out that the only cable bargain is absolute reliability. The Okonite Company, Passaic, N. J.

***where there's electrical power . . . there's* OKONITE CABLE**

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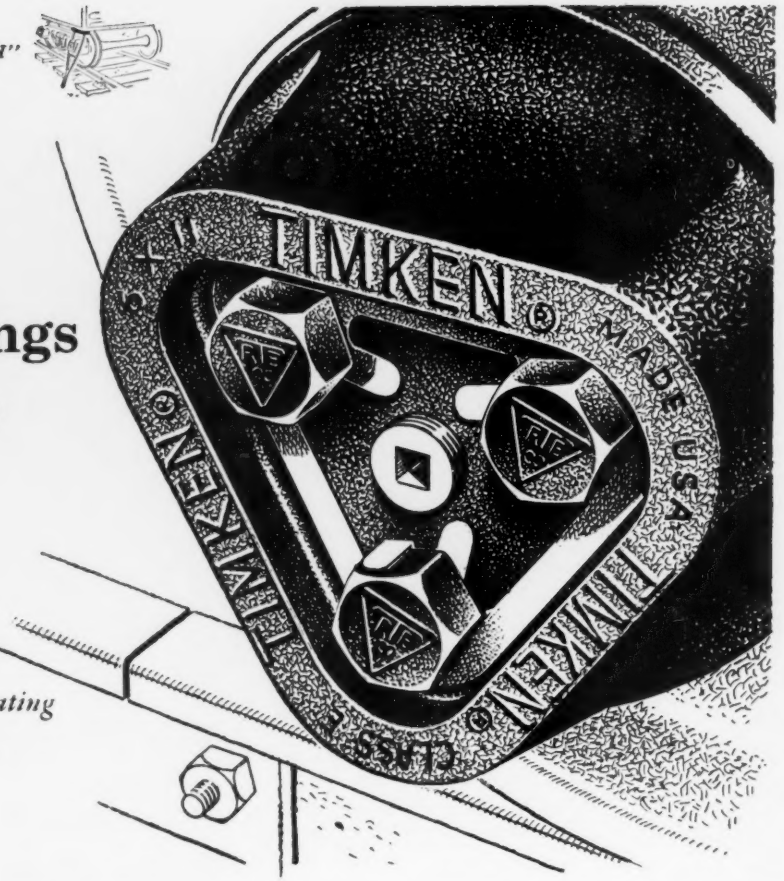
THERE'S NO CURE WITH A "CRUTCH"

You can count on Timken® bearings to Cure the Hot Box problem

They pay for themselves over and over and over in operating and maintenance savings



YOU CAN'T COUNT on costly "crutches"—devices attempting to improve friction bearing performance—to cure the hot box problem. The only cure you can count on is Timken® bearings. They remove the *cause* of hot boxes—the friction bearing itself.

EXTRA DIVIDENDS

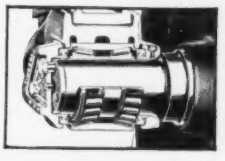
In addition to curing the hot box problem, Timken bearings bring *extra* savings. They wipe out the frequent inspection and lubrication that friction bearings require—even with "crutches"—to keep operating. Timken bearings cut terminal bearing inspection time 90%, lubricant cost as much as 95%. In fact, the new Timken heavy-duty type AP (All-Purpose) bearing assembly can go three years without the addition of lubricant. When all railroads go "Roller Freight", they'll save an estimated $224 million a year, earn about a 22% net annual return on the investment.

THE TAPER'S THE ANSWER

Timken bearings do away with the hot box problem because they *roll* the load instead of *sliding* it. There's none of the metal-to-metal sliding friction you get with friction bearings. And because of their tapered design, Timken bearings are the only ones you can count on to cure the hot box problem *and* bring costs down to lowest level. There's no lateral movement—the taper prevents it. Result: there's no pumping action, less lubricant is needed. There's no scuffing or skewing, bearings wear longer. And we make our own bearing steel, to be sure you get the finest, toughest steel available. No other American bearing manufacturer takes this extra quality control step.

When you figure in the extra cost of buying and maintaining "crutches" that never cure, the difference in price between friction and roller bearings is less today than ever. And by using a planned conversion program, a major American railroad shows how to reduce costs even further. Whenever a freight car of this road comes into its shops for major repairs, it is converted to roller bearings. This method makes it easier to maintain a steady shop and labor schedule, keeps bearing installation costs to a minimum. And it makes it easier to spread the conversion cost over a period of years.

CONVERSION PLAN THAT SAVES

Why struggle along with costly "crutches"? You can count on Timken bearings to *cure* the hot box problem—and cut operating and maintenance costs to a minimum. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

Only **TIMKEN**® bearings cure the hot box problem and cut operating and maintenance costs to a minimum